DOCUMENT RESUME

ED 066 559 VT 016 040

TITLE	School, Community and Youth. Statewide Evaluation of Part G Programs in Cooperative Vocational Education in the State of Illinois/1971-1972.
INSTITUTION	Southern Illinois Univ., Carbondale.
SPONS AGENCY	Illinois State Board of Vocational Education and Rehabilitation, Springfield. Vocational and Technical Education Div.
PUB DATE	31 May 72
NOTE	108p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Cooperative Education; Dropout Characteristics; *Dropout Prevention; Dropout Research; *Dropouts; Family Background; Instructor Coordinators; Program Costs; *Program Evaluation; Student Characteristics; Student Needs; Tables (Data); *Vocational Education
IDENTIFIERS	Career Exploration; Illinois; Vocational Education Acts

ABSTRACT

Two types of educational programs were designed to reach the potential dropout of 14-15 years of age and the early school leaver. The first program, known as the Work Experience and Career Exploration Program (WECEP), was developed to expose potential dropouts to the world of work and to impress upon them the importance of a high school education. The second program, the Early School Leaver Program (ESL), provides an opportunity to upgrade job skills by exploring the world of work and by acquiring greater academic skills. This document represents an evaluation of these programs and includes research data on: (1) student characteristics, (2) the health study, (3) sleep and nutrition patterns, (4) student gains, (5) program characteristics, (6) teacher-coordinator profile, (7) program administration, (8) costs allowed to employers and students, and (9) applications of a cost-benefit model to programs in cooperative vocational education. (JS)

School, Community, and Youth

Statewide Evaluation of Part G Programs in Cooperative Vocational Education
State of Illinois 1971–1972
Lawrence Weisman Project Director
Department of Occupational Education

ED 066559

Southern Illinois
University at Carbondale

SIU

VT 016 040

State of Illinois
Board of Vocational Education
and Rehabilitation

Members

James W. Cook, *Chairman*
Chicago, Illinois

Dr. Michael J. Bakalis
Superintendent of Public
Instruction

William H. Robinson
Director, Registration and
Education

Gordon L. Ropp
Director of Agriculture

Barney J. Grabiec
Director of Labor

Dr. Franklin D. Yoder
Director of Public Health

Dr. Albert J. Glass
Director of Mental Health

Mrs. Jimi Anne Lawrence
Director of Children and Family
Services

Warner Saunders
Chicago

Robert Friedlander
Chicago

Richard Ehrman
Bloomington

Stanley P. Hutchison
Evanston

Stuart Mamer
Champaign

**Division of Vocational
and Technical Education**

1035 Outer Park Drive
Springfield, Illinois
62706

Dr. Michael J. Bakalis,
Executive Officer

Sherwood Dees, *Director*

ED 066559

SCHOOL, COMMUNITY AND YOUTH

STATEWIDE EVALUATION OF PART G PROGRAMS IN
COOPERATIVE VOCATIONAL EDUCATION IN THE
STATE OF ILLINOIS/1971 - 1972

LAWRENCE WEISMAN, Project Director
Instructor in Occupational Education
Southern Illinois University at Carbondale

May 31, 1972

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

Grant No. SPG-A2-042

STATE OF ILLINOIS
BOARD OF VOCATIONAL EDUCATION AND REHABILITATION
DIVISION OF VOCATIONAL AND TECHNICAL EDUCATION
SPECIAL PROGRAMS UNIT

Southern Illinois
University at Carbondale

CARBONDALE, ILLINOIS 62901

May 31, 1972

Mr. Sherwood Dees, Director
Division of Vocational and Technical
Education
1035 Outer Park Drive
Springfield, Illinois 62706

Dear Mr. Dees:

The staff of the Project for Evaluation of Special Cooperative Vocational Education Programs in Illinois submits to you its findings and recommendations.

It is our hope that the report will be helpful to all who are concerned with strengthening the state's innovative programs in cooperative education.

Respectfully,

Lawrence Weisman

Lawrence Weisman
Project Director

TABLE OF CONTENTS

Findings and Recommendations 5

Student Characteristics. 11

Health Study 23

Sleep and Nutrition Patterns 28

Student Gains. 33

Program Characteristics. 43

Teacher/Coordinator Profile. 58

Administrative Aspects of Part G Programs in Cooperative Vocational Education 63

Added Costs Allowed to Employers and Students. 69

Applications of a Cost-Benefit Model to Part G Programs in Cooperative Vocational Education 72

Project Staff. 99

ACKNOWLEDGEMENTS

The project staff is deeply grateful to the many individuals who added to the successful completion of this report. The coordinators, teachers and administrators who generously gave of their time and knowledge made the most vital contributions. To list all these people here would be to write a directory. We would like to thank particularly Mr. John Sweeney and Ms. Elsie Hogancamp of the Division of Vocational and Technical Education for their insights and support. Mr. Paul Karber and the Early School Leaver and WECEP staffs in Carbondale cooperated with the pilot study and contributed much to the improvement of the instruments that were utilized. Mr. Joseph Dixon, of Chicago, contributed to the success of this study by his insight and recommendation for modifications to make the study workable in inner city conditions. Mr. Phillip Spielmacher of SIU's Data Processing and Computer Center, was helpful in translating our data to the computer. We would also like to thank Dr. Eli L. Borkon, Clinical Director of the School of Medicine, SIU, for his comments on our health report.

To my associate, Dr. Rose Mary Carter, our research assistants, Mr. John R. Weddle, Jr., Mr. John Hendricks and Mr. Louis Holtz, my personal thanks for their cheerful cooperation in working long hours, inconvenient schedules and many days away from home. Our secretary, Ms. Anne Newcombe, was more than a secretary, but a home base, a rooter and all-around help. My thanks also go to the student workers Mr. Ronald Butcher, Mr. Dick Simms, Ms. Robin Stein and, especially, Mr. Larry Shell, who had the dreary job of tabulating and coding data and whose cheerfulness and industry made this phase of the work consierably easier for the entire staff.

Lawrence Weisman

PREFACE

In The Great School Legend, Greer points out that for 70 years public schools have failed to educate about 40% of their pupils. The legend that the American school system transformed the ragged ill-fed children of European immigrants into productive members of the middle class is, in fact, a myth. These immigrant children learned their occupations from their skilled and semi-skilled parents and learned their moral values at home. Those who believe that the same educational system can "work the same miracles" for black and Spanish-speaking pupils, the "new immigrants of today," are basing their premise on a myth.

If we who participate in the great American dream believe in the individuality of people, then we fail to reconcile this belief when we try to devise a single form of education that will be universally acceptable and effective. The efforts being made under Part G of the Vocational Education Amendments of 1968 to provide innovative programs is part of the dawn of recognition of the validity of that statement. The myriad students who cannot function effectively under the traditional system of education are not necessarily less intelligent or incorrigible, but they are different in their motivational patterns and in their physical and emotional needs.

It is the intention of this study to define the characteristics of the students who are enrolled in the Part G programs in Illinois, to identify their needs and aspirations and to correlate those activities that appear most fruitful in achieving the objectives set for the participating group of students.

INTRODUCTION

Historical Perspectives

Although the major preoccupation with work experience and training programs for socially and culturally disadvantaged persons began with the enactment of the Economic Opportunity Act of 1964, several of its antecedents had already taught us a few worthwhile lessons. In 1961 the aid to families with dependent children (AFDC) program, authorized by the Social Security Act, was amended to provide Federal assistance to state grants to unemployed fathers (AFDC-UP). The fact that presumably employable men were receiving public assistance prompted the Congress in the next year to further amend the Social Security Act to permit expenditures for AFDC-UP to be made through payments for work. These amendments also encouraged states to adopt Community Work and Training projects to offer practical work experience and to help AFDC-UP recipients to achieve economic independence. The amendments were the forerunners of the greatly expanded Federal involvement in work and training for disadvantaged groups in the War on Poverty, begun with the enactment of the Economic Opportunity Act (EOA) in 1964.[1]

All reports on the effect of the Community Work and Training program reflect disappointing results.[2] But two years later the attitude of Congress toward providing training and employment opportunities for the disadvantaged changed. The purpose of Congress was to make as many disadvantaged persons as economically independent as possible by providing significant work experience and training. With the enactment of recent legislation, particularly Part G to the Vocational Education Act, as amended in 1968, what was neralded in 1964 as a significant aspect of the War on Poverty looms even larger and promises to continue for some time.[3]

Work Experience and Career Exploration Programs (WECEP)

The WECEP programs were established to aid the potential 14 or 15 year old school dropout, and to also give these special students a chance at work experience. The rationale behind these programs is to reach

---

[1] Abraham S. Levine, "Job Training Programs for the Disadvantaged," Welfare in Review, p. 1.

[2] Ibid., p. 2.

[3] Ibid., p. 3.

the students before they drop out of the school and completely shut out any form of education. It is also believed that these programs will expose the students to the world of work and that they will thus better understand the necessity of at least a high school education.

Early School Leaver Program (ESL)

Throughout the United States during the past decade, the high school dropout has received a great deal of attention, most of it negative in nature. Vocational educators in the State of Illinois have expressed a keen interest in doing something constructive for this type of student; consequently the Cooperative Vocational Educational Program for the school leaver has been adopted to help meet this need. The program is intended to help those students who earnestly want to better their ways of life by upgrading job skills, by exploring the world of work and by acquiring greater academic skills, if desired. Although comprehensive in nature, the program cannot help every student who leaves high school. For some students, however, it may be an opportunity to reevaluate themselves, to acquire job skills, and to complete requirements for a high school diploma or the equivalent certificate (GED).

Rationale

We have assumed that the districts participating in Part G programs recognize the need for alternatives for students who do not conform to traditional standards in education. It was evident, in examining the proposals written for these programs, that there are many structures and various activities which could be utilized by such programs in seeking the same ends. The question was, "Under what conditions were these structures operant and activities applied and were the results worthy of the efforts?" The variables considered as conditions were, first, the characteristics of the students, to include achievement levels, health, motivation, attitudes and their economic and social status. Second, we have tried to consider something of the characteristics of the teacher; preparation for this type of teaching situation, interpersonal relationships with students and attitudes towards these special students. Finally, we were concerned with the environment of those learning activities operated by the school system, other than employment. It was our intention to identify areas in which gains could be measured relative to the objectives established by the school districts. Based on these gain scores, we intended then to identify those programs that appeared most and least productive and to describe these with the conditions under which they were operant, to provide a basis for evaluation, modification and development of each program by the individual program coordinators and to further provide a basis for planning new programs.

Pragmatically, we also recognize that, under a system of limited funding, the alert administrator would want to know the relationship between product and investment before committing or continuing to commit a portion of the budget. We have therefore included some models and simple cost-benefit studies.

Procedures

Experimental, empirical and correlative methods of investigation were employed. WECEP programs have each established a control group to match their experimental group (participating students). For the ESL programs, there was no possibility of establishing control groups, so that experimental techniques could not be employed for this class of programs. However, correlations may be made based on similarity of activities between significant gains made in experimental groups in WECEP programs over their controls and gains made in corresponding activities by ESL programs. Because of the difference of maturity rates between the age groups, the ESL groups being young adults and the WECEP students being 14 and 15 year olds, the necessity of a control group was greater for the WECEP programs. By using the control, it was possible to adjust for student tendencies towards disorientation or reorientation to school as a result of maturity. To provide quantitative data for the experimental and correlative portions of the study, several questionnaires were used: the Student Personal Questionnaire, the Employer Questionnaire, the Teacher/Coordinator and Administrator Questionnaire and the Survey of Former Students. In addition, a survey of health records was conducted by members of the project staff at the time they visited programs in the field.

Except for the health surveys, the questionnaires were distributed by the coordinators; business reply envelopes were provided so that current students, administrators and employers could prepare their responses confidentially and return them directly to the project office, to reduce possible biases. A procedure was established for coordinators to code the response forms sent to former students so that the former students would not feel threatened by identification and so that the teacher/coordinators, by using the codes, could pursue replies from those who did not respond initially. The goal was set to obtain at least 90% return against the population sample. It was felt that low returns would be biased favorably and would therefore be invalid.

The empirical portion of the study was accomplished by visits to participating programs in the field. At least two members of the evaluation team visited each program. During these visits, informal interviews were conducted with key administrators, program teachers and teacher/coordinators, a sample of participating pupils and a sample of participating employers.

All questionnaires were reviewed by members of the project staff and posted to worksheets for machine processing. Certain data, such as classifying and tabulating objectives of each program, summarizing and classifying notes on program activities, and health survey data, were handled manually.

The various members of the staff undertook specific areas of responsibility in the preparation of the final report: Carter focused on student nutrition; Weddle examined student characteristics, health records,and gains; Hendricks gathered cost-benefit data; Holtz summarized learning activities and teacher characteristics and correlated these with program gains. The project Director consulted in the development or helped in the writing of each of these reports, excepting Carter's. Stein made a special contribution in researching the legal aspects of transportation. Each member of the evaluation team reviewed the final report in its entirety, so that, as completed, this report represents the combined effort and consensus of the project staff.

FINDINGS AND RECOMMENDATIONS

The following findings and recommendations represent the view of the project staff and are not to be construed as policy of the Division of Vocational and Technical Education. The findings and recommendations are referenced by page number to the substantiating portions of the report.

STUDENT CHARACTERISTICS

WECEP	Page
The average age of the WECEP students was 15.2 years and about two-thirds were male.	11
About one-third of these students were members of a racial or ethnic minority group.	11
The average size of the WECEP students' families was 5.76 members.	12
Over 40% of the students do not have real fathers living at home to serve as father figures.	12
About one-third of the WECEP families live at the "poverty" level.	12
Of the WECEP students, 49.7% had been either school disciplinary problems or juvenile offenders.	13
The mean student IQ was 92.05, and the mean reading level was 6.06 (grade level equivalent).	13
Evidence was found of underachievement among the students.	13
It is recommended that program placement for students with low IQ's be carefully considered, and that combinations of educable, but mentally handicapped classes and the WECEP program be explored to determine the optimum setting for these students.	13
Student selection criteria established by WECEP programs are generally being met and they are reaching the student population intended.	14

	page
ESL	
About two-thirds of the ESL students were male and the mean age of ESL students was 17.4 years.	15
Of the ESL students, 42% were members of a racial or ethnic minority group.	15
The average ESL family had five members.	15
There was evidence that over one-half of the ESL students come from some type of broken home situation.	15
Less than one-fifth of these students were married and/or self-supporting.	16
Evidence suggests that over one-third of the ESL families live at the "poverty" level.	16
Three of every four ESL students had been disciplinary problems in school or had been juvenile offenders.	17
The mean reading level (in grade level equivalent) was 7.64.	17
Program student selection criteria are being met in areas analyzed.	17
General	
Student aspirations and motivations showed a pattern of orientation towards meeting basic needs - financial security, a decent job, and a good future family life.	17,18
Individual students showed variation from other students in terms of most of the variables discussed. They form a heterogeneous group.	18
HEALTH STUDY	
It is recommended that a study be made to determine if more thorough physical examinations would reveal a significant number of formerly undetected health problems which may be contributing to these students' underachievement.	26
It is recommended that a pilot study with a fair sample of programs be done to determine if thorough physical examinations would reveal a significant number of previously undetected health deficiencies.	26,27

SLEEP AND NUTRITION PATTERNS

	Page
It is recommended that health and nutrition instruction be incorporated into the ESL and WECEP programs.	28
It is recommended that coordinators become more active in assisting eligible students to obtain free and subsidized breakfast and lunch programs if available, and it is further recommended that they work to establish these programs if they are not currently available.	28
It is recommended that ESL and WECEP students be encouraged to apply for agency assistance, such as free medical or dental clinic care, as appropriate.	28

STUDENT GAINS

There was no statistically significant difference between control and experimental groups (WECEP only) in terms of both IQ and Grade Point Average (GPA)prior to the individual's entering the program.	34,36
Students in the WECEP programs did make significant gains in GPA over their control groups	34
WECEP students gained significantly in outlook, attitudes and interpersonal skills.	37
Follow-up studies are needed of former control groups to compare control group dropout rates against experimental group dropout rates. Based on a narrow sample, there is a high (over 75%) rate of retention of WECEP alumni, but without control data, the significance cannot be computed.	37
Strong gains were evident in school attendance and in reduction of disciplinary problems (empirical study).	39
Early School Leaver (ESL) students made very significant gains in attitudes, outlook and interpersonal skills.	39,41
Former ESL students gained in increased income and employability in terms of both skills and educational qualifications.	41,42

PROGRAM CHARACTERISTICS

	Page
It is recommended that counseling techniques be investigated by coordinators as a possible method where improvements are desired in areas of attitude, career knowledge and employment skills.	44
It is recommended that counseling techniques be included in preservice and inservice training for cooperative education coordinators.	44
It is recommended that parental consultations be utilized as an ongoing portion of the special cooperative programs; home visitations and family guidance should be considered for inclusion in this program.	44
It is recommended that self-contained classrooms be considered, established apart from the regular school facilities, where school facilities are crowded and where further gains are needed in the area of reorienting students to study.	45
It is recommended that non-traditional methods of instruction be adopted in the presentation of career exploration information.	46
It is recommended that coordinators continue to strive for job stability.	51
It is recommended that teacher/coordinators with a low number of students employed, explore the fast-food service industry as a source of student training stations.	51
It is recommended that more emphasis be placed on careers and career development.	54
It is recommended that reading specialists or para-professionals trained in remedial teaching be included in ESL programs.	55
It is recommended that ESL programs include staff which have backgrounds in remedial teaching (reading).	55
It is recommended that techniques of selling be included in preservice and inservice training for cooperative education coordinators.	55
It is recommended that program designs provide for maximum flexibility in coordinator and student schedules.	56

Page

It is recommended that the cooperative education program for persons with hearing impairments should adopt the following general terminal objective: upon completion of the program the graduate will function as a self-sufficient member of society. 56

TEACHER/COORDINATOR PROFILE

It is recommended that WECEP programs be planned so that students have both a male and a female associated with the program with whom to identify. 58

It is recommended that coordinators be sought with diversified work experience or be encouraged to obtain seasonal positions to gain work experience other than teaching. 59

It is recommended that means and coordination be established to enable coordinators to share experiences. This might be feasible for inclusion in summer workshops. 59

ADMINISTRATIVE ASPECTS OF PART G PROGRAMS IN COOPERATIVE VOCATIONAL EDUCATION

It is recommended that twenty students per full time equivalent program staff member be adopted as a normal work load. WECEP programs should use this standard when a maximum of two academic classes and physical education are scheduled in the regular program and adjusted accordingly for deviations from this distribution. This standard presumes that ESL students are carrying a maximum of three academic units of work, and should be adjusted according to variation in student work load. Adjustments should also be made for special facilities and other special conditions. 63

It is recommended that a model for self-evaluation should be developed and presented in preservice and inservice training experience. 64

It is recommended that greater local publicity should be given to the WECEP and ESL programs and that techniques, media, and content of publicity releases should be included in preservice and inservice workshops. 64

It is recommended that contracts for WECEP and ESL programs provide for facilities appropriate to the activities planned. 64

page

It is recommended that administrators and coordinators responsible for transportation of students where privately owned vehicles are utilized review appropriate statutes and codes to ensure that they are meeting their legal responsibilities 65

ADDED COSTS ALLOWED TO EMPLOYERS AND STUDENTS

It is recommended that added costs to employers be eliminated except for handicapped students and under extreme market conditions. 69

It is recommended that added costs to students be utilized only for ad hoc pressing circumstances. 70

It is recommended that transportation alternatives be explored to find the one that produces the most desirable cost-benefit ratio. 70

APPLICATIONS OF A COST-BENEFIT MODEL
TO PART G PROGRAMS IN COOPERATIVE VOCATIONAL EDUCATION

It is recommended that the model developed be adapted to each program and used as a basis for justifying continued and expanded funding of WECEP and ESL programs. 72

It is recommended that some differential be provided for at least two years for each new program established so as to compensate for inefficiencies during the developmental period and as an incentive for innovation in the event that federal funding is discontinued. 72,74,83

It is recommended that the State continue some level of special funding. 92

STUDENT CHARACTERISTICS

by
John R. Weddle, Jr.

The purpose of the study is twofold: to provide normative data for other portions of the report and to provide basic information about the student to aid the coordinators in formulating the learning experiences relevant to the student's problems and needs. Factors such as family background, aspirations of the student, basic intelligence and reading levels, are important in helping the teacher achieve this goal. We will describe student characteristics in terms of general tendencies. It is important to recognize, however, that the team observed a wide range of student characteristics from one program to the next, and this section presents only a general picture of students in the WECEP and ESL programs. Information in this section is based on data from: Student Personal Questionnaires, filled out by students; Student Achievement Summaries, completed by program coordinators; and impressions of the evaluation team from program visits. There was enough difference between the WECEP and ESL students to warrant separate treatment; thus, they will be described in two different sections. The tables at the end of this section detail the results of our analysis of student characteristics.

WECEP Students

Age, Sex and Ethnic Characteristics

The following information is based on 495 Student Personal Questionnaires, out of a possible return of 680, from 29 of 33 WECEP programs.

The majority of WECEP students in Illinois, 62.7%, are male. This factor varied considerably from program to program. With the exception of one program, almost all of the WECEP students were either 14, 15 or 16 years old. There were very few 13 and 17 year-olds in the WECEP programs. One WECEP program varied from this pattern and included students from 17 through 24 years of age. This is the WECEP program for deaf students at DeKalb.

Minority groups comprised a notable portion of the WECEP group. Almost one-third of the students were members of a distinct minority group, either ethnic or racial. Of the minority group students, 80% were black, with most of the rest being Mexican Americans and American Indians. Again, concentrations of minority group students varied considerably between programs.

Family Size and Composition

WECEP students' families ranged in size from one through 18; this is the number of people, including the student, who live in the same home as the student. The mean family size was 5.76 members. Nearly 70% of these families had between none and three members who were under 18 years old. (This number does not include the student, even when under 18.) The mean number of members in this category per family was 2.7 Thus, the "average" WECEP family consists of three to four members under 18 years and usually two other members over 18 - commonly parental figures.

Over 20% of the WECEP students indicated either that no one acted as their father, or that their real father acted in this capacity, but did not live at home. The majority (58%) of the students' father figures were their real fathers, who lived at home, and another 13% indicated that stepfathers served as their fathers. A much greater percentage of the students reported that their real mother lived at home - 89%. Thus, these students have a pattern of broken families of some sort or another; over 50% of the students do not have their real fathers or real mothers living at home.

Family Income

Total family income for the WECEP families varied a good deal. Just over 10% of the families have incomes of under $3,000 per year, certainly a very low income. About 30% of these families fall into each of the income ranges of $3,000 to $6,000, $6,000 to $9,000 and over $9,000 per year. Thus, some WECEP families enjoy incomes in the middle and upper-middle class income ranges, but most fall into the area of lower-middle class income or below. By comparing family income and family size with Social Security Administration definitions of poverty income levels, it appears that at least 25% of these families are at or below the poverty income level.

On the questionnaire, 57.5% of the WECEP students reported that their mothers work, and 69.1% stated that their fathers work. Of these working mothers, 20.8% are employed as professional, technical and kindred workders, which includes health workers and teachers. Significant other numbers are employed as manufacturing laborers, food service workers, and clerical workers. Working fathers were most commonly employed as craftsmen, foremen and kindred workers. This includes construction and metal craftsmen, mechanics and repairmen. Manufacturing laborer was the next most frequent paternal occupation, followed by miscellaneous service workers. Of the WECEP students

surveyed, 22.2% reported that they contributed to the family income, and they most often were employed as food service workers. Two-thirds of the WECEP students reported that they had had some sort of job before entering the program; 27% had done various service-type jobs (yard work, paper delivery, babysitting, etc.), and about as many (25%) had worked in a food service operation.

Previous School Performance and IQ Scores

Other WECEP student characteristics were made available to us through Student Achievement Summaries from 21 programs. These included data on 358 WECEP students. These revealed that 49.7% of these students had a record of being either a school disciplinary problem or a juvenile offender. Most of these would be included in the school disciplinary group. The mean grade point averages for these WECEP students prior to entering WECEP was 2.16 (A = 5, B = 4, C = 3, D = 2, F = 1), with a standard deviation of 0.69. Thus, just over two-thirds of these WECEP students had prior GPA's of between 1.47 and 2.85 - more or less the "D" to "C" range. The WECEP students, then, have a record of receiving poor grades in school.

To get an idea of what sort of level of intelligence these WECEP students possess, analysis was made of IQ scores from 15 WECEP programs, including 215 students. The mean IQ for these students was 92.05, or slightly below the population norms. The standard deviation for these IQ's was 16.67 IQ points, showing that these scores varied considerably about the mean. IQ scores ranged from a low of 52 to a high of 128. In fact, 28.8% of the 215 IQ scores were 100 or above. If IQ scores and prior GPA's are compared, it appears that at least one-third of these students are underachieving in that many of these students are capable of better than "D" work, especially the 28.8% who had IQ's of 100 or above. For some reason, these students have not performed at levels consistent with their IQ's. Thus, for these students, the label of underachiever is appropriate.

IT IS RECOMMENDED THAT PROGRAM PLACEMENT FOR STUDENTS WITH LOW IQ'S BE CAREFULLY CONSIDERED, AND THAT COMBINATIONS OF EDUCABLE, BUT MENTALLY HANDICAPPED CLASSES AND THE WECEP PROGRAM BE EXPLORED TO DETERMINE THE OPTIMUM SETTING FOR THESE STUDENTS.

Another group of students presents a different problem. Of these WECEP students, 20.5% had IQ values which were 80 or below. Therefore over one in five of these students have IQ's between 52 and 80. The range of 50 to 80 is commonly considered the educable, but mentally handicapped (EMH) range. Such students are often served in special classroom situations, and by personnel trained to work with

students in the EMH range. Students in this IQ range need a specially structured classroom situation to meet their needs, and warrant careful consideration before being assigned to a school program. It is important to note that IQ scores alone can misrepresent the abilities of certain students. This is especially true with the disadvantaged - culturally, economically, or academically. Nevertheless, these low reported IQ scores suggest that the characteristics of these students must be analyzed carefully by school officials. Some of these students may need to be in special EMH classes. This does not preclude the possibility that they could also benefit from the WECEP concept. For these students, a combination of special EMH classes and the supervised work experience offered by WECEP could meet the needs of these students. Some may be best served entirely through EMH classes, others in this IQ range may best be placed in the typical WECEP program.

Finally, scores were made available on reading levels of 83 WECEP students from eight programs. These revealed that the mean grade level reading equivalent for these students was 6.06. Reading levels ranged from a low of 1.2 to a high of 13.3 and their standard deviation was 2.73. Thus, over two-thirds of the students are reading between the third and ninth grade levels.

All of the test score and grade information shows variation. This suggests, as does the previous section, that the students are quite heterogeneous. They have their own problems, assets, liabilities and foibles, and it is necessary that their individual needs be considered by the teacher/coordinator. This variety of students in the WECEP programs calls for different approaches and treatments to help them succeed.

Selection of Students

Analysis of criteria used for student selection by WECEP programs revealed emphases on the following criteria: 1) student must be 14 to 16 years old (16 year-olds may remain in the program until the end of the semester, year, etc.); 2) students may have a record of behavioral and/or school attendance problems; 3) students should be potential school dropouts; 4) students may have poor school grades; 5) students' families may have a financial need for student earnings. Of course, a student will not necessarily meet all of these criteria, but a part of them at least. The preceding section on WECEP student characteristics showed that 94% of the WECEP students meet the age criterion. One-half had been school disciplinary problems, the majority had a school record of grades below the "C" level, and at least one-third of the families lived at the poverty level. The combination of the delineated characteristics point to a poor setting for these students continuing in school. Thus, these student selection criteria are being met, and the WECEP programs are reaching the students they have intended to reach.

ESL Students

Age, Sex and Ethnic Characteristics

The findings which follow are based on returns of Student Personal Questionnaires from 246 ESL students, from a total ESL student population of 300, in eight of the nine ESL programs in the state.

The mean age of the ESL students who responded was 17.4 years. The youngest ESL student responding was 14 years old, and the oldest was 32. Of the ESL students, 82% were either 16, 17 or 18, and less than 6% were 20 years of age or older. About two-thirds of the ESL students are male.

Of the ESL students, 42% indicated that they were minority group members. Of these, 87.2% were black students, with the other minorities represented being American Indians, Orientals, and Mexican-Americans. This factor, more than any other ESL student characteristic, varied greatly from one program to another.

Family Size and Composition

The mean size of the ESL students' families was 5.0 members. Family sizes reported varied from one through 16. Almost three-fourths of ESL families contained between two and six members. The mean number or children living at home under 18 years of age (not counting the respondent) was 2.44 About three-fourths of these families had three children or less under 18 living at home. An "average" ESL family has five members, usually three children under 18 years old, and two parents.

Analysis of responses revealed that more than four-fifths of the ESL students are not living independently; thus, the parent-child relationship is important to consider. Less than half of the ESL students indicated that their real fathers served as fathers, and lived at home. Almost an equal number indicated either that their real fathers did not live at home, or that no one acted as their fathers. (Some students who are independent may have listed that no one acted as their fathers, simply because the students were self-supporting. This would tend to inflate this category slightly.) About 40% of these students, then appear to be without much paternal influence at home. The portion of real mothers who lived at home and served as mothers to these students was higher than that for the fathers. 58% of the real mothers fell into this category. 22% of the ESL students indicated that either their real mothers did not live at home and act as mothers, or that no one acted in the maternal role for the students. About 20% of the parents were stepfathers or stepmothers. Based on the lack of real mothers and fathers present in the home, it appears that over one-half of these students come from some sort of broken home situation. These can lead to a lack of guidance at home which manifests itself in maladaptive or inappropriate behavior by the

student. These home situations are important for the teacher/coordinator to be aware of in dealing with these ESL students.

Only a few of the ESL students reported that they were married (10.5% of the respondents), and the majority reported that they were single (84.2%). The remainder reported being engaged, divorced, or living with someone. Of those responding, less than one in five indicated they were self-supporting. As was stated earlier, this shows that most students still fall under their parents' authority in some way and this effect was examined in the previous paragraph. Over 80% reported being either partly self-supporting, or simply not self-supporting. However, a greater percentage of the ESL students are being counted on for some earnings. Almost one-quarter of these students have someone depending on them for income - usually one other person. This could be a spouse, child, parents, or other family member. This indicates that some of the ESL students need their jobs for purely economic reasons.

Family Income

Family income reported by ESL students was diverse, although most incomes fell in the low income and lower middle income areas. Over half of the ESL families had incomes of less than $6,000 per year, and less than one in five reported incomes of over $9,000 per year. Especially for the larger families in the under $6,000 bracket, economic deprivation is present. At least one-third of these families fall at or below official federal guidelines for poverty levels of income. This factor likely contributes to the problems that these ESL students have had in the past. For these families, most income was earned by the heads of the households. 46.1% of the ESL students indicated that their mothers contributed to family income, and 58.1% reported fathers who did the same. As with the working WECEP mothers, most working ESL mothers were employed as health workers, teachers, manufacturing laborers, food service workers, and clerical personnel. ESL fathers were commonly employed as metal and construction craftsmen, mechanics, repairmen, manufacturing laborers, and miscellaneous service workers. About one in five of the ESL respondents indicated they contributed to the family income. Three out of four ESL students indicated that they had been employed at some time prior to entering the ESL program.

Previous School Performance and IQ Scores

It was possible to analyze other ESL student characteristics using data from Student Achievement Summaries returned by program coordinators. These summaries were analyzed for four of the nine ESL programs, and included information on 205 ESL students, 68% of the total ESL population of 300 students. Of these 205 students, three out of every four

were listed as having been school disciplinary problems, and/or juvenile offenders. Statistics on reading levels were available for 132 students from two programs. The mean reading level for these students, in terms of grade level equivalent, was 7.64. These varied from program to program, and from individual to individual. The individual range was from 0.0 to 13.1 reading grade level.

Selection of Students

ESL programs emphasized a number of student selection criteria for their programs: 1) the age of the ESL students should generally fall between 16 and 21 years; 2) the students should have dropped out of school; 3) the students should have financial need for the earnings possible in the ESL programs; 4) the students should have a desire to attend, to improve themselves. These were not "iron-clad," and potential students were expected to present various combinations of these criteria. The above discussion of ESL student characteristics revealed that over 90% of the ESL students met the above age criterion. The low incomes of ESL families reported earlier showed that the selection criterion of student financial need is being met. Interviews conducted by the evaluation team verified that students were expected to have already dropped out of school, and the students interviewed expressed a desire to improve themselves and were motivated towards making a better future for themselves. Therefore, these data show that the ESL programs are working with the proposed population. The listed student selection criteria are being met.

General Information on Both ESL and WECEP Students

One question on the Student Personal Questionnaire was designed to provide insight into the motivations of the ESL and WECEP students. The students were asked to list three wishes and given room to respond. The responses given by the WECEP and ESL were not sufficiently different to warrant two analyses, so that the groups are reported here together. A total of 639 students listed a total of 1,799 wishes. The most common wish expressed was for money, more money, to be rich, etc. This desire was followed in order by wishes for short-term job satisfaction, a car, personal success or happiness, a good future family life, and for longer term job success. This shows that these students tend to think in very practical terms. The greatest number of students most strongly desire some sort of financial and job security, something many have not experienced in the past. The WECEP and ESL students do not seem to be idealistically inclined; they simply aspire to a decent life.

As with the other preceding data, responses to these wish items are tabulated at the end of this section on student charcteristics.

Finally, student characteristics were observed by the evaluation team at the time of program visits. Most students appeared to be motivated towards getting a decent job, were friendly, and were capable of expressing their needs and desires directly. Many mentioned some level of disenchantment with the formal school situation and some of their underachievement can be attributed to this. Approximately 200 students were interviewed, and the consensus of the evaluation team was that these students appeared bright and well-behaved; they were pleasant, responsive young people with basic, realistic drives; the overall reaction of the team was that these students have the potential to meet their goals and aspirations.

Table I

ESL and WECEP Student Characteristics

Age

WECEP: Mean age of 491 WECEP students: 15.2 years
Standard deviation: 1.15

ESL: Mean age of 182 ESL students: 17.4 years
Standard deviation: 2.03

Sex

	WECEP	ESL
Male	62.7%	61.7%
Female	37.3%	38.3%

Racial/Ethnic Identity*

	WECEP	ESL
White	68.5%	57.8%
Black	26.0	36.8
Mexican-American	3.3	2.2
American Indian	1.2	2.7
Puerto Rican	.6	--
Oriental	.2	.5
Other	.2	--
	100.0%	100.0%

Family Income*

	WECEP	ESL
Under $3000/year	11.9%	22.1%
$3000 - $6000/year	26.5	35.3
$6000 - $9000/year	32.6	23.4
Over $9000/year	29.0	19.2
	100.0%	100.0%

*Chicago programs are not included in these summaries.

Table II

ESL and WECEP Student Characteristics

WHO ACTS AS STUDENT'S FATHER?

	WECEP	ESL
Real father, who lives at home:	58.0%	43.4%
Real father, who does not live at home:	10.6	17.4
Stepfather:	13.0	8.7
Foster father:	.2	2.2
Grandfather:	1.4	2.2
Other relative:	2.2	1.1
Other adult:	2.0	2.2
No one:	12.6	22.8
	100.0%	100.0%

WHO ACTS AS STUDENT'S MOTHER?

	WECEP	ESL
Real mother, who lives at home:	89.2%	69.9%
Real mother, who does not live at home:	2.0	7.7
Stepmother:	2.0	2.2
Foster mother:	.8	1.1
Grandmother:	2.3	3.3
Other relative:	1.5	1.6
Other adult:	.6	1.6
No one:	1.6	12.6
	100.0%	100.0%

FAMILY SIZE[1]

WECEP: Mean size of 490 WECEP families: 5.76 members
Standard deviation: 2.26

ESL: Mean size of 183 ESL families: 5.04 members
Standard deviation: 3.17

NUMBER OF CHILDREN UNDER 18 IN FAMILY[2]

WECEP: Mean number of children under 18 in 495 WECEP families: 2.69
Standard deviation: 2.07

ESL: Mean number of children under 18 in 183 ESL families: 2.44
Standard deviation: 2.99

---

1 Number of people living in student's home, including student.

2 Does not include student, if he should be under 18.

Table III

ESL and WECEP Student Characteristics

GRADE POINT AVERAGE BEFORE ENTERING PROGRAM

WECEP:	Mean GPA for 307 WECEP students:	2.16*
	Standard deviation:	.69

STUDENT TEST SCORES

WECEP:	Mean IQ score for 215 WECEP students:	92.05
	Standard deviation:	16.67
	Range:	52 - 128
WECEP:	Mean reading level** for 83 WECEP students:	6.06
	Standard deviation:	2.72
	Range:	1.2 - 13.3
ESL:	Mean reading level** for 132 ESL students:	7.64
	Standard deviation:	2.72
	Range:	0.0 - 13.1

STUDENT DISCIPLINARY RECORDS

WECEP:	Proportion of 358 WECEP students listed as either school disciplinary problems or juvenile offenders:	49.7%
ESL:	Proportion of 205 ESL students listed as either school disciplinary problems or juvenile offenders:	74.4%

ESL STUDENT MARITAL STATUS:

Single	84.2%
Married	10.6
Divorced	.5
Engaged	1.9
"Living with another person"	1.4
Unidentified	1.4
	100.0%

ESL FINANCIAL SUPPORT STATUS

Student indicated he was self supporting	19.3%
Student indicated he was partly self-supporting	33.7
Student indicated he was not self supporting	47.0
	100.0%

---

* A = 5, B = 4, C - 3, D - 2, F = 1.

** Reading levels reported in grade level equivalents.

Table IV

Student Wishes* (ESL and WECEP Combined)

Categories of Wishes	% of Total
Money, more money, to be rich, etc.	14.4
Job goals (short term)	10.4
A car (also motorcycle)	9.6
Personal satisfaction (success, happiness, etc.)	7.7
Good future marriage and/or family life	6.1
Job goals (long term)	5.8
A house or home (nice house, big home, etc.)	5.0
Other (nonsense and miscellaneous)	4.9
World peace, brotherhood, religious, and other altruistic	4.6
Friendship (includes boy/girl friend)	4.6
Other possessions	4.4
High school education	4.2
Better family life (present home situation)	2.8
College education	2.5
To have more wishes	2.4
Vacation or travel	2.1
Geographic (live somewhere else)	1.8
Independence or freedom	1.6
A driver's license	1.6
Health, better health	1.1
To be a certain age	.8
Stay in and/or finish present program (ESL or WECEP)	.8
Better school achievement (grades)	.8
	100.0%

* Students were asked: "If you could have three wishes come true, what would they be?" Table shows percentages of responses of total of 1799 wishes recorded by 639 ESL and WECEP students.

HEALTH STUDY

by
John R. Weddle, Jr.

The health study which we conducted as part of this evaluation was undertaken because of the nature of the students with which the WECEP and ESL programs deal. All of these students have had problems in school of one sort or another. Typically, this has been manifested in underachievement in school work, or some other type of maladaptive behavior in the school setting. As we delineated on pages 13 through 14 , in the section dealing with student characteristics, many of these students are characterized by underachievement in school. Based on their IQ scores, they are typically of slightly below average intelligence, with some below this level, but notably, as many above the "average" IQ as are below the group mean. In spite of this range of basic intelligence, these students all had grade point averages significantly below the "C" level. Thus, their school grades are apparently below their capacity to achieve; they are underachievers.

It should be noted that the scores on which these conclusions have been based have not been adjusted for cultural disadvantages. It is not known how significantly this group mean would improve if culture-free or minority normed tests were used.

The reasons for these behavior patterns are not clear. If they were, we would have answers for the question of why these particular students did so poorly in school. Certainly, such problems can be attributed to a multiplicity of factors: problems at home, lack of motivation, personality conflicts with peers and/or teachers, psychological problems, even disenchantment with the "system." Another factor which can contribute to and/or cause such problems is poor health which causes poor work, with frustration and poor behavior following.

If a student is unable to see the blackboard clearly, must strain to listen to the instructor, or is constantly so tired that he cannot pay attention, then these oft-unnoticed problems may be manifested in the form of poor performance by the student. The student must be basically healthy or he will have a difficult, if not impossible, job of keeping up with his peers of equal intelligence. Thus, it is possible that a student's poor performance may be due to personal physical problems which have gone undiagnosed. The students in the WECEP and ESL programs have had problems in their performance in school. In dealing with these students, therefore, we should make sure that their poor learning performance is or is not due to some problem of poor health. If we discover that a particular student has a health

problem, then it is paramount that this be treated before we can expect any improvement in the student's performance. Thus, the student who has had a record of underachievement should be examined carefully to determine whether this problem could be due to physical reasons.

The purpose of our examination of the health records of the students in these programs was to determine what sort of attention these students had received to the possibility that their learning underachievement could be due to physical problems. To do this, we scrutinized the physical exam records which had been administered by physicians of many of the students in these programs, with particular attention to certain key items. The following variables were checked: 1) whether a physical exam report was on file for the student; 2) whether this was on a school form; 3) how recently this exam had been administered; 4) what sort of visual acuity check was/was not indicated; 5) what sort of hearing acuity check was/was not indicated; 6) whether a blood test of any sort had been administered; 7) whether a urinalysis of any sort had been administered; 8) what the overall appearance of the form was (complete, blank, etc.); 9) whether indications had been made on the student's medical history.

Since the results we obtained were so different for the WECEP and the ESL groups, they will be discussed separately.

WECEP Results

Health records were checked at 27 WECEP programs as we made our school visits. This gave us quite complete coverage of the health records of the WECEP group, since the total number of WECEP programs under evaluation was 33. At these 27 programs we checked health records of 494 students. This represents 76% of the students enrolled in the 33 programs. At some locations, health records were not readily available or we were able to survey only a portion of the students' records. Of these 494 records examined, we found that 92% contained a physical examination form. This amounted to a total of 456 physicals present.

Of these 456 exam records present, 99% were on school forms. We did find that these school forms varied greatly in degree of comprehensiveness. Of these physical exams, 77% had been conducted within the past year. By and large, the physicals which are required by law in Illinois for ninth graders had been administered and were on file. Thus, the vast majority of ninth and tenth graders in the WECEP programs had had physicals within the past year. Most of the eighth graders, however, had not had a physical within the past year. Since Illinois law does not require a physical exam between fifth and ninth grades, most eighth graders had not had an exam in three or four years.

Of these exams, 93% indicated that a test of visual acuity had been made. Out of these 422 exams which indicated such a check, only 7% indicated what type of visual acuity check had been made. Most of these (88%) used the Snellen (wall chart) type test, while only 12% used the more desirable Titmus machine test. The Titmus test can measure variables like depth perception and nearby acuity, in addition to simple acuity at 20 feet, which is all the Snellen test measures. Of these exams, 91% indicated that a test of hearing acuity had been made. Of the 369 tests, 11% were identified. The whispered voice type accounted for 50% of the tests and 50% were Audiometer tests. It is important to note that of these visual and hearing acuity checks specified, many were of the less adequate types. The Snellen test (wall chart) of visual acuity is unable to pick up certain problems which the Titmus test can. Of the specified vision checks, 85% were Snellen tests. Likewise the whispered voice test of hearing is imprecise, yet 50% of the hearing tests specified were of this type. Vision and hearing problems may be unnoticed in these tests which the more thorough tests (Titmus and Audiometer) can discern.

Two very important basic tests did not receive nearly as complete coverage as did the hearing and vision checks, however. Only 5% of the 456 exams indicated that a urinalysis had been performed as a part of the physical examination and only 15% of the exams had included any sort of blood test at all. If the physician knew that he was examining a student who was an underachiever, he might well have given these items more attention.

Another item, probably the most important, which helps the doctor in diagnosing health problems which may not be readily apparent is the medical history of the patient. Only 75% of the forms had indications made in the medical history area.

ESL Results

Because many of the ESL programs are outside of the traditional school setting, and because a wider range of ages are accommodated by such programs than occurs in the WECEP groups, the status of health records varied greatly between programs. Indeed, some ESL programs did not maintain health records on their students. From the five of eight ESL programs where we were able to obtain some indication of the presence of health records, there were health exam records on file for only 34% of a total of 181 students. Even more significant, only 6% of these 62 health records on file were conducted within the past year. The results on the health records we did find were similar to the percentages on the WECEP groups, for the remainder of the items. A good generalization on the status of physical examination records for the ESL programs is that there is little recent material on file for these students.

Recommendations and Findings

IT IS RECOMMENDED THAT A STUDY BE MADE TO DETERMINE IF MORE THOROUGH PHYSICAL EXAMINATIONS WOULD REVEAL A SIGNIFICANT NUMBER OF FORMERLY UNDETECTED HEALTH PROBLEMS WHICH MAY BE CONTRIBUTING TO THESE STUDENTS' UNDERACHIEVEMENT.

IT IS RECOMMENDED THAT A PILOT STUDY WITH A FAIR SAMPLE OF PROGRAMS BE DONE TO DETERMINE IF THOROUGH PHYSICAL EXAMINATIONS WOULD REVEAL A SIGNIFICANT NUMBER OF PREVIOUSLY UNDETECTED HEALTH DEFICIENCIES.

It appears that exams are being given to the WECEP students at the ninth grade level as prescribed by State law. This is reassuring. However, the gaps in the information present in these exams in the areas of urinalysis and blood tests,and the superficial nature of the visual and auditory tests leaves one dubious as to whether the exams are sufficently thorough for persons with a symptom of underachievement. While hearing and vision problems may be detected by these exams, coupled with school administered tests in these areas, other problems may be undetected due to the paucity of information present in the areas of urinalysis and blood chemistry. Some of these students may have problems which these administered physicals do not pick up.

As far as the ESL students go, we know little about their physical health status. Unnoticed health problems could be present in this group which may account for some of the difficulties these students have had in the past.

We do know that these students have had learning and school difficulties. Thus, it is important to determine to what extent physical abnormalities are accounting for these problems. Without attending to these problems as part of an effort to help these students improve, we may be ignoring the real problem for a proportion of the students - the student's health. The gaps in the physicals have been delineated. Time and budget limiations prevented us from actually assessing how prevalent undetected health problems are among these students which help explain their poor records.

We asked Eli Borkon, M.D., Clinical Director of the School of Medicine, Southern Illinois University at Carbondale, to review our findings; he comments:

> I agree with the recommendations of a pilot study and would further back the recommendation that a note somewhere to the examining physician stating the problem of "underachievement" might red flag the examiner into a more thorough evaluation. Of course, I have any physician's reservation about the physical exam emphasis on eye, ear, urine, and hemoglobin. For example, an ideal examination should include color test on a visual

examination, heart function, respiratory function, nutrition, digestive organ evaluation (is the child suffering from cramps, diarrhea, constipation? He often won't tell the casual examiner.) Does the child have neurological or locomotor problems?

Anyhow, a pilot group of these children subjected to a model exam done by expert pediatricians would be most interesting and valuable for comparison. Thus, we could further emphasize the value of the examination if many more reasons were found for the "underachievement." Most interesting.

SLEEP AND NUTRITION PATTERNS

by
Rose Mary Carter

IT IS RECOMMENDED THAT HEALTH AND NUTRITION INSTRUCTION BE INCORPORATED INTO THE ESL AND WECEP PROGRAMS.

IT IS RECOMMENDED THAT COORDINATORS BECOME MORE ACTIVE IN ASSISTING ELIGIBLE STUDENTS TO OBTAIN FREE AND SUBSIDIZED BREAKFAST AND LUNCH PROGRAMS IF AVAILABLE,AND IT IS FURTHER RECOMMENDED THAT THEY WORK TO ESTABLISH THESE PROGRAMS IF THEY ARE NOT CURRENTLY AVAILABLE.

IT IS RECOMMENDED THAT ESL AND WECEP STUDENTS BE ENCOURAGED TO APPLY FOR AGENCY ASSISTANCE, SUCH AS FREE MEDICAL OR DENTAL CLINIC CARE, AS APPROPRIATE.

Sleep Patterns

The health of the students included in the study could be adversely affected by their sleep patterns. The table below depicts the hours of sleep per night.

Table I
Hours of Sleep per Night

Hours of sleep	Frequency	Percentage
Less than 3 hours	12	1.6
Less than 5 hours	40	5.4
Less than 7 hours	159	21.5
7 to 8 hours	392	52.9
More than 8 hours	121	16.3
No response	16	2.2

As can be seen from examining the data above, there are seven percent of the subjects who sleep less than five hours per night and there are 28% who get less than seven hours of sleep per night. For this age group, about 10 hours of sleep each day is desirable.

Results of insufficient sleep are manifested in physical languor and psychological disturbances ranging from irritability to hallucinations. Readiness for learning is hampered by inadequte sleep. Graver consequences of insufficient sleep include stunted growth and malformed internal organs. The irritability of subjects deprived of sleep is increased while visual perception and comprehension levels are decreased by poor sleeping habits.

Nutrition

Food Intake

The frequency of food intake for the student-participants is shown below.

Table II

Frequency of Food Intake

Number of Meals per Day	Frequency	Percentage
One	47	6.3
Two	186	25.1
Three	244	32.9
Four	174	23.5
Other	70	9.4

Habits of food intake seem to be a problem for at least 31% of the subjects as they eat two or less times, daily, which is highly detrimental to health.

The blood sugar of at least one-third of the subjects, due to food intake patterns, dips to lows which curtail energy and nutrients available for body growth and repair.

Timing of food intake for the student-participants is shown below.

Table III

Time of Food Intake

	Yes		No	
Time	Frequency	Percentage	Frequency	Percentage
Early morning	315	42.5	424	57.2
Mid morning	197	26.6	544	73.4
Noon	442	29.6	299	40.4
Mid afternoon	237	32.0	504	68.0
Evening	489	66.0	252	34.0
Late evening	315	42.5	426	57.5

Patterns of food intake reveal that 57% of the students do not eat in the early morning while 40% do not eat at noon.

Studies have shown that missing a meal, particularly breakfast, has grave results in loss of efficiency and energy. There is evidence to support the idea that moods and mental outlook are adversely affected by meal skipping. Also, hunger and mal-nourishment have a signficant detrimental effect on achievement and academic attainment.

Nutritive Intake

The nutritive intake of the student-participants is summarized in the table below.

Table IV
Portion Intake of Food Group

# of Servings	Meat Group		Milk group		Bread group		Vegetable and fruit group	
	#	%	#	%	#	%	#	%
1	209	28.2	175	23.6	238	32.1	195	26.3
2	237	32.0	174	23.5	186	25.1	191	25.8
3	115	15.5	147	19.8	103	13.9	104	14.0
4	37	5.0	49	6.6	35	4.7	37	5.0
5	16	2.2	32	4.3	9	1.2	14	1.9
6	3	.4	8	1.1	5	.7	5	.7
7	1	.1	3	.4	2	.3	--	--
8	3	.4	6	.8	4	.5	5	.7
9	6	.8	11	.5	6	.8	9	1.2

As is shown clearly by examining the above data, there is a significant percent of the students who get only one serving of each food group daily.

There are approximately one-third of the subjects who do not obtain enough protein to build and repair tissue. This has grave consequences for body organs and functions. There are obviously too few servings of fruits and vegetables obtained in order to prevent scurvy, night-blindness, rickets, and pellagra. In addition, quarrelsomeness, moodiness and irritability result from vitamin deficiency. One-third of the subjects are not obtaining foods high in mineral content needed for such functions as blood clotting, bone, hair, and nail formation, and teeth repair or growth. Insufficient fat intake is indicated which results in non-cushioned nerve endings. This body condition causes pain and aches which in turn affect the mental condition. When these nutrients are missing, body efficiency is lowered and resistance to disease is reduced. Thus for this one-third of the subjects, insufficient nutrient intake is adversely affecting their lives.

Diet Supplements

The students were asked to indicate any diet supplements ingested regularly; the response is depicted below:

Table V
Diet Supplements

Diet Supplement	Yes		No	
	#	%	#	%
Vitamin pills	102	13.8	637	86.0
Vitamins plus iron	48	6.5	693	93.5
Iron	24	3.2	716	96.6
Calcium	4	.5	737	99.5
Other	15	2.0	727	97.8

It appears that few of the students take any regular diet supplement.

In view of the fact that a significant portion of the subjects are not obtaining a balanced diet, supplements could be helpful. However, few of the subjects utilize supplements.

Snacks

Students' response when queried regarding snacks is shown in the following table:

Table VI
Snacks Chosen by Subjects

Food	Frequency
Sweet, non nutritive	140
Milk and milk products	124
Soda Pop and Kool Aid	100
Chips	96
No response	90
Sandwich	87
Tacos, Pizza, Spaghetti	85
Breads and cereals	62
Fruits	44
Anything	39
Nothing	24
Meat, poultry and fish	19
Sex	12
Non legible	11
Beer, wine and rum	8
Drugs	2
Eggs	1
Vegetables	1

The kind of snack does vary widely. As is obvious, the most popular snack is of the sweet, non-nutritive type, such as chocolate candy.

When snacks are viewed in relation to other food patterns, it becomes tragic that the snacks chosen are relatively non-nutritive.

When snacks are classified as nutritive or non-nutritive, the results are interesting as shown in the following table.

Table VII
Type of Snacks Chosen by Subjects

Nutritive		Non-Nutritive	
#	%	#	%
361	46	420	54

Over half of the subjects choose snacks which are non-nutritive.

These subjects need nutritive kinds of snacks for optimal functioning, thus it is unfortunate that over half choose non-nutritive foods between meals.

Summary

The summarization of the sleep and nutrition data is as follows:

1. Almost one-third of the subjects obtain insufficient sleep for optimum health.
2. Almost one-third of the subjects eat two or less times daily.
3. Over half of the subjects eat no breakfast.
4. Forty percent eat no lunch.
5. Almost one-third of the subjects get only one serving or less of each of the four food groups.
6. Eighty-six percent of the subjects take no diet supplement.
7. Over half of the subjects eat snacks which are non-nutritive in nature.

STUDENT GAINS

by
John R. Weddle, Jr.

General

In evaluating any sort of program which is designed to accomplish certain objectives, it is important to determine and measure what gains have been made in terms of those objectives. One needs to look at these positive or negative gains in order to help determine if the program has merit, should be continued, discontinued, or expanded. With this in mind, this section delineates the gains which the students in the WECEP and ESL programs have made, and their significance. The data for this analysis came primarily from four sources: 1) Student Achievement Summaries. These were completed by program coordinators who listed student grades, test scores and disciplinary records. For the WECEP programs this information was provided for both the experimental and control groups, thus enabling us to evaluate the magnitude and significance of gains. 2) Student Personal Questionnaires. These forms were filled in by students in the programs, and included some questions on change in attitudes, outlook, and self-images of the students. 3) Interviews with students, coordinators, administrators and employers. 4) Former Student Surveys. These were mailed to former program enrollees and focused on changes in attitudes, employability, etc. Because of the differences in programs, WECEP and ESL program gains will be examined separately.

WECEP Gains

Student Grades

The most concrete type of gain which was observed for the WECEP programs is that of change in student grades since enrolling in the program. Improvement of student grades was an objective of many of the WECEP programs.

We examined student grades earned before the students were in a WECEP program, and compared these to the grades which they had earned since being a WECEP student. These changes were then compared to a body of similar data collected for the control groups which had been identified at each WECEP school. These control groups were to contain the same type of individuals as the experimental groups, in terms of the

criteria used by the school for selection of WECEP students. The students identified as control students were given no special treatment, and continued in their normal school curricula, while the experimental group began study in WECEP programs.

We received control data from 13 WECEP programs which allowed us to make comparisons between control group performance and experimental group performance. The table on the following page details results from these programs. The two groups at each of the 13 programs included 235 experimental students, and 220 control group students. We found that the mean gain in grade point average made by these 235 experimental students was significantly greater than that made by the 220 control group students. The average gain made by the WECEP students was +.502, while the control group change was -.066 per student, a slight drop. These changes are based on a five-point grading scale where A = 5, B = 4, C = 3, D = 2, and F = 1. Thus, while little change occurred in the grades of the control students, the average WECEP student's grades improved about one-half of a grade point. A detailed statistical analysis of these changes, using T-tests, revealed that the experimental group improvement was significantly greater than the control group change, with alpha = .10.

Analyzing this data in another way, we find that only 30.9% of the 220 control group students made any gain at all, while the majority of these students(69.1%) had either their grade point averages drop or stay the same. Over the same time periods, the 235 experimental students did much better. 68.9% of the experimental students showed an improvement in GPA, while only 31.1% recorded no change or a drop in their grade point average. Thus, both in terms of average GPA change, and in terms of number of students registering GPA improvement, these 13 experimental groups compiled much better records than did their collective control groups.

It is also possible to examine the change made in grade point average by program. Out of the 13 WECEP programs analyzed, a total of nine of these showed a positive gain in GPA per student which was,statistically,significantly greater than the change registered by their respective control groups. The other four showed no statistically significant difference in the performance of their control and experimental groups. T-tests were used to establish the statistical significance of these changes, and alpha was set at .10. Thus, 69% of the WECEP programs displayed a significantly better performance in terms of GPA than did their control groups.

In examining and analyzing these gains, it is important to establish that the control groups and the experimental groups actually did contain similar students. Otherwise, the validity of these comparisons of grade point averages would be questionable. In order to establish

Table I
Average Changes Made Per Student in GPA in WECEP Programs

Program Number	No. in Control Group	Average Gain per Control Group	No. in Experimental Group	Average Gain per Experimental Group	Comparison of Groups: Net Difference	Comparison of Groups: Difference Statistically Significant?
1	23	-.07	34	+.58	+.65	Yes
2	20	+.05	20	+.48	+.43	Yes
3	10	-.27	14	+.26	+.53	Yes
4	16	-.13	18	+1.11	+1.24	Yes
5	21	-.36	18	+.23	+.59	Yes
6	13	-.46	.4	+.90	+1.36	Yes
7	16	+.05	20	+.79	+.74	Yes
8	29	-.05	27	+.52	+.57	Yes
9	14	+.04	14	+.88	+.84	Yes
10	17	-.03	17	+.10	+.13	No
11	9	No change	9	+.28	+.28	No
12	15	+.04	13	+.18	+.14	No
13	18	+.11	17	-.02	-.13	No
TOTAL	220	-.066	235	+.502	+.568	Yes

Mean gain per student in GPA for 235 experimental students was significantly greater than gain made by 220 control students. These differences were analyzed with T-tests, and alpha was set at .10.

this, we scrutinized two indices of student characteristics: their IQ scores and their grade point average prior to commencement of the experiment. These indices were compared for the 13 control groups and experimental groups under examination. Information supplied allowed us to examine the prior GPA of the control and experimental students in all 13 programs, and to compare IQ scores for nine of these 13.

Combining the 13 control groups and comparing them to the total of 13 experimental groups, we found no statistically significant difference between the GPA's earned by the student prior to commencement of the experiment in the control groups, and in the experimental groups. Both combined groups showed prior GPA's of about 2.2 on a scale where A = 5. Thus, both groups began the experiment with GPA's slightly above the "D" level. Making the same comparison on a program by program basis, we found that in 12 of the 13 programs there was no statistically significant difference between the prior GPA of the control group and its corresponding experimental group. T-tests were again used for these statistical tests, and alpha equaled .01.

Moving to a comparison of the IQ scores observed in the control groups and in the experimental groups, we again found no statistically significant difference between the pooled contol groups' IQ values, and the pooled experimental group IQ's. In addition, all nine of the programs which presented IQ data for analysis, showed no statistically significant difference between control and experimental group average IQ scores on a program by program analysis. This lack of difference was established by using T-tests, and alpha = .01.

Thus, we can say that the control groups and experimental groups are essentially no different in terms of these two indices - GPA before the experiment started, and IQ scores. This assures us that comparison of the two groups is valid, because the individuals present in each group are similar. In summary, the experimental groups showed significantly better performance in terms of GPA change than did the control groups, and both these groups contained individuals who have similar intelligence and past achievement in school.

Another type of gain made by WECEP students was assessed by the Student Personal Questionnaire. Certain questions in this form were aimed at delineating student attitude change, change in self-image, and change in interpersonal skills. We were able to analyze returns of these questionnaires from 29 of the 33 WECEP programs. This totaled 495 WECEP students out of about 650 students in all the WECEP programs a 76% student return.

Affective Changes

Analysis of certain responses on this questionnaire revealed that WECEP students exhibited definite gains in outlook, attitudes, and interpersonal skills. The table on the following page itemizes responses to these questions. Responses to the statement, "Before I started this program, my future looked:" showed that prior to entering the programs, almost one-third of these WECEP students felt their futures looked "bad," while over one-half only had a "fair" outlook towards the future. In striking contrast, the same students responded to the statement, "Now, the future looks," in a much more positive way. Since entering the program, well over one-half of these students now feel "good" about the future, as opposed to only 13.9% before entering the program. Only a very small minority felt "bad" about their futures after being in the program, while before nearly one-third fell into this category. These responses indicate that WECEP students are more optimistic about the future than they had been before starting their WECEP studies.

Another question was aimed at determining if positive attitudes had developed about school and/or work as a result of being in WECEP programs. Responses to the question, "Do you think you will do better in school or at work after leaving the program?" showed that 53.3% of the students have a positive attitude towards work and/or school, and less than 10% replied negatively in this regard. This indicates that over half of the WECEP group respondents had developed more confidence in their abilities to succeed.

Another gain measuring question was: "How do you get along with strangers and older people now that you are in the program?" Answers to this question showed that nearly half of the WECEP respondents experienced an improvement in interpersonal skills. They are better able to get along with others they come into contact with during their daily activities. All of these responses to Student Personal Questionnaire questions indicate positive gains in the previously mentioned areas of outlook, attitudes, and interpersonal skills by the WECEP students.

Unfortunately, only limited returns were available to us on the Former Student Surveys. Only two WECEP programs succeeded in getting responses from a sufficient percentage (over 90%) of their former students to be credible. For these two programs, over three-fourths of the former students were still in school at the high school level. Of the former students, 85% indicated they were glad that they had been in the program. Indications were also made that these former students

Table II
WECEP Student Responses to Gain measuring Items
on Student Personal Questionnaire

Question	Number of Responses	Percentage *
Before I started this program, my future looked:		
a. good	a. 69	a. 13.9
b. fair	b. 277	b. 56
c. bad	c. 144	c. 29.1
d. no response	d. 5	d. 1
Now, the future looks:		
a. good	a. 288	a. 58.2
b. fair	b. 185	b. 37.4
c. bad	c. 16	c. 3.2
d. no response	d. 6	d. 1.2
Do you think you will do better in school or at work after leaving the program:		
a. yes	a. 264	a. 53.3
b. no	b. 44	b. 8.9
c. don't know	c. 182	c. 36.8
d. no response	d. 5	d. 1
How do you get along with strangers and older people now that you are in the program?		
a. better than before	a. 227	a. 45.9
b. worse than before	b. 15	b. 3
c. no different than before	c. 248	c. 50.1
d. no response	d. 5	d. 1

*
All above percentages are the percent of responses compared to total of 495 WECEP questionnaires.

had experienced positive gains in the area of their future outlook. Scattered returns from other WECEP programs seemed to exhibit a similar pattern, but these limited returns made it impossible to make general inferences about all WECEP former students.

Finally, the visits made to WECEP programs by the evaluation team enabled its members to develop some evaluation of gains made by students. Many students themselves stated that they had made improvements in grades, school attendance, getting along with others, and work habits. These indications were also verified by coordinators, employers and aministrators. School attendance appears to have generally improved and this aspect of WECEP gains will shortly be examined under the WECEP reporting system.

Some programs had conducted evaluations of student gains themselves and these revealed that their WECEP students were making gains in areas of school attendance, grades, interpersonal skills and responsibility.

Thus, we have established that WECEP students have made significant improvements in their GPA's. Gains have also been noted in their work habits, outlook, attitudes and interpersonal skills, all of which will benefit WECEP students in their future endeavors.

ESL Gains

Student Grades

Because of the differences in program structure and lack of any control groups with which to make GPA comparisons, evaluation of school grade gains was virtually impossible. It was possible to evaluate GPA gains made at one of the nine ESL programs, however. This program presented an improvement of 1.4 grade points per student over its students' original grade point averages. 89% of this program's students had a positive gain in their GPA's.

Affective Changes

The most complete index of student gains made by ESL students was provided by questions on the Student Personal Questionnaire. Returns were analyzed from eight of nine ESL programs. The table on the following page shows responses to these questions for the ESL students. This included 246 student responses out of a total of 300 ESL students, an 82% return. Responses to the question "Before I started this program,

Table III
ESL Student Responses to Gain Measuring Items
on Student Personal Questionnaire

Question	Number of Responses	Percentage*
Before I started this program, my future looked:		
a. good	a. 16	a. 6.5
b. fair	b. 105	b. 42.7
c. bad	c. 119	c. 48.4
d. no response	d. 6	d. 2.4
Now, the future looks:		
a. good	a. 151	a. 61.4
b. fair	b. 86	b. 35
c. bad	c. 2	c. .8
d. no response	d. 7	d. 2.8
Do you think you will do better in school or at work after leaving the program?		
a. yes	a. 173	a. 70.3
b. no	b. 11	b. 4.5
c. don't know	c. 57	c. 23.2
d. no response	d. 5	d. 2
How do you get along with strangers and older people now that you are in the program?		
a. better than before	a. 102	a. 41.5
b. worse than before	b. 3	b. 1.2
c. no different than before	c. 134	c. 54.5
d. no response	d. 7	d. 2.8

*
Percentages are based on the total of 246 ESL questionnaires.

my future looked:" showed that only about one in fifteen students felt "good" about their futures. This presents a rather pessimistic group of entering students. A great change was noted when they responded to "Now the future looks:" Almost 10 times as many ESL students felt their futures looked "good" now as they did before starting the program, while the number of "bad" responses dropped accordingly. This appears to be an important positive gain in optimism and confidence about the future.

These ESL students also indicated new confidence in their capabilities to work or study. Of the respondents, 70.3% indicated that they thought they would do better in school or work after taking the program they were in. Only 4.5% indicated they thought that would not do better, while 25.2% did not know how they would do or made no response. This also indicates new attitudes that have been developed in these ESL programs in terms of work and school. These changes are certainly important in the future success of these ESL students.

Gains were also made by these students in the area of interpersonal relationship skills. Of these students, 41.5% stated that they get along better than before with strangers and older people, now that they are in the program. This can be contrasted with only 1.2% who felt they got along worse than before. Of the respondents, 57.3% indicated that there had been no change, or simply made no response. This improvement in these students' abilities to get along with others will also be a valuable tool in the ESL students' futures.

Indices of student gains were also available to us on the basis of responses to the Former Student Survey. As with the WECEP returns on this form, we received only limited returns from the ESL on the Former Student Survey. Thus, we received only a sufficiently high percentage (greater than 50%) of feedback from one ESL program which warranted analysis as being representative of that program's former students. Of these students, 37% were working, 9.7% were in school, and 19.4% listed themselves as both in school and working. Of those students who are now working, there was a definite increase in what they are earning now compared to what they earned before they were in the program. Before entering the ESL program, only 4.2% earned more than $75 per week, but after being in the program, 30.5% were earning at least this amount. This indicates not only a gain in the income for these former students, but also a gain in their employability. Of those students now working, 85% indicated they felt their present job was better than the one they had before being in the program.

Notable changes also occurred in these ESL students' outlook towards the future. Only 5.6% indicated their futures looked good before they

entered the program, while 62% indicated their futures looked good after being in the program. Of these students, 44.4% felt that they get along better with strangers and older people after being in the program. No student felt that he was getting along worse than before, and 55.6% indicated no change or no response in this area. This change in attitude about the future, and improved ability to get along with others are definite gains which these former students felt they realized by being in their ESL program

Other gains

Finally, other gains were noted in the course of our evaluation team visits. Students, coordinators and employers indicated students had made gains in work habits, motivation, interest, reading level, etc. Some ESL programs have enabled students to earn their Graduate Equivalency Diploma (GED), which is certainly a positive gain in terms of educational accomplishment and future potential.

PROGRAM CHARACTERISTICS

by
Louis Holtz

General

This chapter of the report deals with the activities of the teacher/coordinator as they apply to his/her relationships with the student, the classroom, the employer and the training station.

The ESL student is considered to belong to a population separate from the population from which the WECEP student is drawn - the main criterion for this separation being maturity. There is also an essential motivational difference between the two groups: state law requires that a student remain in school until he/she reaches the age of 16. This places the WECEP student in the category, "you must stay in school" while the ESL student is placed in the category, "I now want to continue my education."

The section of this chapter dealing with activities relating to the student and the classroom is therefore divided into separate statements directed toward the WECEP and the ESL programs respectively.

This chapter draws heavily on the empirical portion of the evaluation, but is supported in part by data collected from the Student Personal Questionnaires, Teacher/Coordinator and Administrator Questionnaires and the Employer Questionnaires. Some portions of this chapter are also supported by the study completed by Weddle concerning student gains and student characteristics.

The empirical study was designed to support the findings of the experimental (and correlative) study, but primarily was an attempt to identify conditions in and of the programs that would not necessarily be identified through the experimental study. Due to differing backgrounds, personalities and interests of the evaluation team members, they might not all view the same activity in a program in the same light. One team member might take note of a particular activity at one program, but at another program, the same activity might go undetected by that same team member or another team member. Thus, the scope of the study was broadened, but the reader should be aware of the statistical limitations of this aspect. The reader should also be aware that due to the number and complexity of activities, it is not always possible to evaluate each activity as a single program variable and relate each variable to specific program gains.

In drawing from the empirical study, it is not always possible to state findings in quantitative terms. Such terms as "few," "some," and "many" are used in reporting activities where experimental data are not available. These terms are used to connote the following meanings: few - probably less than 10%; some - approximately 10 to 30%; many - approximately 30 to 50%; and most - probably greater than 50%.

Students - WECEP

IT IS RECOMMENDED THAT COUNSELING TECHNIQUES BE INVESTIGATED BY COORDINATORS AS A POSSIBLE METHOD WHERE IMPROVEMENTS ARE DESIRED IN AREAS OF ATTITUDE, CAREER KNOWLEDGE AND EMPLOYMENT SKILLS.

IT IS RECOMMENDED THAT COUNSELING TECHNIQUES BE INCLUDED IN PRESERVICE AND INSERVICE TRAINING FOR COOPERATIVE EDUCATION COORDINATORS.

The teacher/coordinator's relationship with the WECEP student is generally quite different from the teacher-student relationship found in the traditional classroom. Many coordinators voiced the opinion that because of these particular students' characteristics, they found themselves playing the roles of counselor, friend and teacher. Many coordinators also expressed the feeling that they represented an image of authority to the students; an image which the students respected and could trust. These relationships between most of the coordinators and their students is supported dramatically by the attitudes expressed by students in the Student Personal Questionnaire. In response to the question, "What do you think of your coordinator-teacher," WECEP students gave 3,029 positive responses (94.9%) as opposed to 162 negative responses (5.1%). The 495 students responding to this question represented 28 WECEP programs.

A few programs were visited in which the students were treated in the traditional, "I am the teacher - you are the student" fashion. At these programs the lack of this interpersonal relationship between the coordinator and the students was evidenced during student interviews when students responded to queries such as, "How do you feel about your teacher?" by saying, "Oh, he's OK," or, "He's just like any other teacher," as witnessed by this investigator.

IT IS RECOMMENDED THAT PARENTAL CONSULTATIONS BE UTILIZED AS AN ONGOING PORTION OF THE SPECIAL COOPERATIVE PROGRAMS; HOME VISITATIONS AND FAMILY GUIDANCE SHOULD BE CONSIDERED FOR INCLUSION IN THIS PROGRAM.

One method considered useful in helping to build this interpersonal relationship with the student is to learn more about the student through home visits. Some teacher/coordinators indicated during the empirical study that home visits were utilized as important aspects of their programs. These teacher/coordinators stated generally that they were able to maintain a closer working relationship with the students in that they were better able to ascertain the wants and needs of the students.

Other teacher/coordinators indicated that they had made some parental contacts, but it was evident that the home visits were not an ongoing portion of the program. Some reasons expressed by teacher/coordinators for not including more home visits in their programs were: lack of time during the school day, the feeling that either the student or the parents did not want the coordinator in the home, and the fact that there had been an early "bad home visit experience."

WECEP Classroom Facilities

Most WECEP programs utilized the regular high school or junior high school classroom facilities. The majority of the teacher/coordinators did not have an assigned classroom and were required to move from one classroom to another. Changing classrooms was cited by a few teacher/coordinators as being detrimental to program effectiveness, but in most cases was viewed as being a necessary inconvenience. During one class, in which this investigator observed the activities of a guest speaker, the class was required to move to a different section of the building after approximately twenty-minutes had expired. The class was then reorganized (with some new faces present) and the speaker continued his presentation. Situations such as this are unwarranted in any teaching/learning environment.

IT IS RECOMMENDED THAT SELF-CONTAINED CLASSROOMS BE CONSIDERED, ESTABLISHED APART FROM THE REGULAR SCHOOL FACILITIES, WHERE SCHOOL FACILITIES ARE CROWDED AND WHERE FURTHER GAINS ARE NEEDED IN THE AREA OF REORIENTING STUDENTS TO STUDY.

Two programs were identified which had classroom facilities located outside of but adjacent to the main school building. The statistical data collected for these two programs were isolated in an attempt to compare these programs with similar programs that utilized the regular classroom facilities. It was determined that a valid statistical comparison could not be performed due to the number of uncontrolled variables present in each WECEP program. However, the following data which were extracted from the various questionnaires administered at these two programs and from interviews with program personnel, appears to have prima facie value (See Table I).

1. Both programs had placed greater than 60% of the students at training stations.

2. Both programs produced a gain in the mean GPA. The mean GPA (.63) at one program is slightly higher than the gain for all WECEP programs (.51). This gain may have been affected by two other factors: 1) a teacher/coordinator and another teacher both work with these 30 students; and 2) students enrolled in the program had an average IQ of 99.3, which is above the average IQ for WECEP students generally (92.05).

There is no control group information given for this program. The mean GPA gain at the other program was .26. This gain is below the WECEP average GPA gain, but is significantly higher than its control group gain (-.027). There was no information given on this group's IQ scores.

3. Attitudes and self-concepts were improved at both programs as determined from responses in the Student Personal Questionnaire.

4. Program personnel at these programs indicated during the course of the team visits that the separate classroom facility had merit in that it removed the student from what the student probably considered a hostile environment. At both programs the student was required to return to this "hostile" environment to attend his academic classes, but was allowed to leave the school building upon completion of this requirement.

Although the data collected at the two schools do not support a claim that this activity is producing outstanding, measurable gains in the programs, they do suggest the need that the concept of having a separate classroom outside the main school building be explored in greater detail to evaluate its worth as an ongoing activity in future WECEP programs.

Another point brought out in this comparison is the utilization of more than one teacher in the program. This activity could be warranted in many of the programs where the present teacher/coordinator is presently restricted by a rigid school system in which scheduling is a problem or where the teacher/coordinator is working with students from more than one school.

WECEP Classroom Activities

Classroom activities in related classes observed by the evaluation team members ranged from the traditional, text book oriented lecture to settings in which the students participated in activities relating to career guidance, work and school attitudes, and employment skill training. "Following the text" did not appear to be an effective technique to use with a student who had already been identified as being "turned off" by traditional curricula.

IT IS RECOMMENDED THAT NON-TRADITIONAL METHODS OF INSTRUCTION BE ADOPTED IN THE PRESENTATION OF CAREER EXPLORATION INFORMATION.

Table I

Comparison Data for WECEP Programs
Outside the Main School Building

Program X	Program Y
Objectives	
Provide employment	Provide employment
Improve work attitudes	Improve work attitudes
Improve school attitudes	Improve school attitudes
	Provide career exploration
	Improve grades
Identified Activities*	
Programmed texts	Traditional texts
Traditional texts	Tutor
Slide tape	Home visits
Tutor	Teacher/coordinator
Flexible school schedule	No added cost funds used
Teacher/coordinator	
Teacher	
Added cost funds used	
Findings	
Thirty students enrolled	Fourteen students enrolled
Twenty students (67%) placed at training stations	Nine students (64%) placed at training stations
Average IQ = 99.3	No IQ data given
Range, 83 - 125	GPA change, 1.98-2.24 = .26
GPA change, 2.15 - 2.78 = .63	Control group GPA change 2.49-2.47 = -.027
No control group data given	Responses to Student Personal Questionnaires show high positive attitudes toward program and teacher/coordinator
Responses in Student Personal Questionnaires show high positive attitudes toward program and teacher/coordinator	

*This is not to state that these were the only activities present.

Many of the teacher/coordinators were using group discussion techniques in personal development and career information. Roche, at Elgin, uses this technique effectively with his "Well Dones." He asks the students to communicate a recent accomplishment and also to identify an area in which they recognize a need to improve. This sharing of successes and obstacles leads to an exchange of personal support as well as insights into the conditions of each other's employment. The value of this program is shown by the information in Table II and as summarized:

1. The students at Elgin had a strong positive attitude toward their teacher/coordinator. There were 142 (94.3%) positive responses and 7 (5.7%) negative responses to the question, "What do you think of your teacher/coordinator? " The students also had a high positive attitude toward the program.

2. Students' average GPA gained .375 from 2.35 to 2.75. This was below the average WECEP student GPA gain of .51.

3. There were eighteen students enrolled in Roche's program and seventeen (94%) had been placed at training stations. This is much higher than the WECEP average of 63% placed at training stations.

Not all discussion methods observed were as effective as Roche's "Well Dones." At a few schools the investigators observed that the teacher/coordinator might say he was using discussion techniques to cover the fact that he was not adequately preparing a learning experience in the classroom. At a few programs, students' comments such as "It's like another home room," or "We do whatever we need to do; I sometimes even take a nap," indicated that they were not impressed with the related class. Many coordinators would benefit from additional training in discussion techniques; for these few, such training is essential.

Employment skill training is used by some teacher/coordinators to enhance the students' position with present or future employers. These activities include such things as learning to count change, working a cash register, and taking meal orders. Field trips were used in some instances to explore the working world. Programmed texts, films and slide-tape presentations were also used in some programs to further the career exploration phase of the program.

The majority of the program contracts list school achievement or better grades as major objectives of their programs. Most of the teacher/coordinators were utilizing a second hour of class (or part of the related class) to tutor students in other subjects. They expressed the opinion

Table II
Elgin (Roche) WECEP Student Attitudes and Gains

Questions and Answers	Number of Responses	Percentage
14. How do you feel about being in this program?		
a. good	a. 15	a. 94
b. OK	b. 0	b. 0.0
c. bad	c. 0	c. 0.0
d. no response	d. 1	d. .06
15. What do you think of the coordinator/teacher?		
a. positive*	a. 142	a. 95.3
b. negative**	b. 7	b. 4.7
19. Before I started this program my future looked:		
a. good	a. 1	a. 6
b. fair	b. 5	b. 31
	c. 10	c. 63
20. Now, the future looks:		
a. good	a. 13	a. 81
b. fair	b. 2	b. 13
c. bad	c. 0	c. 0
d. no response	d. 1	d. 6
21. Do you think you will finish this program?		
a. yes	a. 10	a. 63
b. no	b. 0	b. 0
c. don't know	c. 6	c. 37

*Positive answers: is fair, understands me, explains things, knows a lot, helps me with my employer, interested in me, friendly, a good person, is well organized, easy to talk to, helps me learn my job and listens.

**Negative answers: talks too much, too friendly, is unfair, hard to understand, not friendly does not listen, is not organized, does not care about me.

Table II (continued)

Questions & Answers	Number of Responses	Percentage
22. Do you think you will do better in school or at work after leaving the program?		
a. yes	a. 9	a. 56
b. no	b. 2	b. 13
c. don't know	c. 5	c. 31
23. Would you recommend this program to a friend of yours?		
a. yes	a. 16	a. 100
b. no	b. 0	b. 0
24. How do you get along with strangers and older people now that you are in the program?		
a. No different than before	a. 2	a. 13
b. Worse than before	b. 0	b. 0
c. Better than before	c. 13	c. 81
d. No response	d. 1	d. 6

GPA Information

20 students
12 had gains in GPA (60%)

Mean prior GPA = 2.35

Mean GPA since starting program = 2.725

Mean change = +.375

Mean change of +.375 was below the total experimental students' average for all WECEP experimental groups combined.

A = 5, B= 4, C = 3, D = 2, F = 1.

Enrollment Information

18 students enrolled

17 students (94%) placed at training stations.

that an important objective of the program is to help the student achieve success in the regular classes. This factor will have some influence on the increase in students' grade point averages as reported in the section concerning student gains. A few teacher/coordinators view this academic achievement as being of greater worth than the work experience or the career exploration with the result that many students in their programs are not being placed at training stations.

Placement Practices

IT IS RECOMMENDED THAT COORDINATORS CONTINUE TO STRIVE FOR JOB STABILITY.

In considering the career exploration aspects of WECEP programs, two questionsbecame evident pertaining to job placement. The first was whether there would be value in rotating students in their jobs. The second was whether each program had sufficient job diversity to afford the students opportunity to exchange experiences.

In response to the first question, the majority of staff personnel (64%) indicated that the benefits gained in rotating students between jobs would not compensate for the objections and inconvenience to the employer.

Regarding the second question, we find, according to Employer Questionnaires (122 employers responding), teacher/coordinators are placing students in two main job categories. These are food service (47%) and retail sales (36%). Other categories indicated were manufacturing, wholesale distribution, processing, and transportation. Ninety-six (79%) indicated that they had noticed improvements in the cooperative students in areas such as interpersonal relationships, grooming, speech, and self-confidence.

In interviews, employers frequently commented on the growth of the students in such areas of work skills as promptness and initiative. A consensus of the coordinators agree that acquiring these common employment skills may be more important than diversification of jobs, particularly if diversification limits the number of jobs available and, since they are likely not to be career jobs, the specialized skills are not crucial.

IT IS RECOMMENDED THAT TEACHER/COORDINATORS WITH A LOW NUMBER OF STUDENTS EMPLOYED, EXPLORE THE FAST-FOOD SERVICE INDUSTRY AS A SOURCE OF STUDENT TRAINING STATIONS.

Many teacher/coordinators have discovered that they are able to place students at fast-food service establishments. The evaluation team members found this to be true in programs where the student could be free from school activities during fast-food service peak "rush hours." Many of the fast-food services incorporate a training program for their employees and the students are able to advance from janitorial duties to (in at least one case) management trainee.

Program Comparison

Activities which have been described in this section will not always work for all coordinators in all situations. An attempt was made, however, to identify a program in which some of these activities are present and compare this program with a program that has been identified as utilizing a more traditional approach to the teaching-learning situation.

Two programs have been identified for comparison purposes that display some of these activities. The two programs were comparable in several respects. These were:

1. Program objectives as stated in the program contracts. Objectives were matched in four categories: 1)provide employment; 2) explore careers; 3) develop work attitudes; and 4) improve school attitudes. There were no differences observed in the objectives.

2. Geographical area. The two programs operated within a fifty mile radius of one another.

3. Population served. The area is heavily industrialized and on the outskirts of a large metropolitan area.

4. Students. Prior grade point average was slightly lower (-.26) for program A than for program B. There was no significant difference in the students' average IQ's. Program A had 15 students enrolled and Program B had 13 students enrolled.

5. Scheduling. Both schools were operated on the same type of scheduling system.

6. Facilities. Both teacher/coordinators cited the need for improved classroom facilities.

7. Both programs had been in operation for a comparable length of time.

8. A and B have had comparable formal education and comparable past work experiences.

These programs contrasted in the following respects:

1. A's class was operated informally with the emphasis on student participation. Group techniques were utilized to explore the world of work and to discuss personal problems. B's class was operated formally with the emphasis on lecture, utilizing a traditional text book.

2. A was tutoring students in other subjects, but there is no indication that B was performing this function.

3. A stated that home visits were an ongoing part of his program, while there is no indication that this was true in B's program.

4. A gave students pre-employment training, but this activity could not be identified in B's program.

Findings

Student's GPA - A's average student grade point average increased .9. B's average student grade point average increased .2. WECEP average student GPA increased .5.

Training Stations - A placed approximately 60% of students at training stations. B placed approximately 38% of students at training stations. Average number of WECEP students placed at training stations is 63%. If B had as many students enrolled as A, the students employed would represent only 33%, or 56% of the number A had employed.

Student Attitudes - Student attitudes improved in both programs. There was no significant difference between the programs in this respect.

Summary

This comparison cannot distinguish the importance or impact of each activity. It does indicate that when certain activities are utilized in combination, some gains in meeting the program objectives may be realized.

Students - ESL

The teacher/coordinator's relationship as observed with the ESL student is different from the relationship observed with the WECEP student in that the ESL student is older and more mature and is in no way "forced" to participate in the program. ESL teacher/coordinators generally viewed themselves in the roles of counselor and tutor. Many of the teacher/coordinators and the teachers in the programs stated that they achieved the best results with the students when they treated the students as equal adults. Behling, at Rockford, expressed this quite well with his phrase, "the people to people approach."

The teacher/coordinators and the teachers at most of the ESL program sites stated that on occasion they served in the role of counselor. They stated that students would come to them, sometimes seeking advice about personal problems and at other times, just wanting to find a willing ear to listen to their problems.

IT IS RECOMMENDED THAT MORE EMPHASIS BE PLACED ON CAREERS AND CAREER DEVELOPMENT.

Material relating to careers and the world of work was available at many of the ESL program sites. However, emphasis was placed on the academic subjects toward the goal of either the high school diploma or the successful completion of the GED test.

ESL Classroom Activities

Most of the ESL facilities included one or two large classrooms with no individual study rooms. An exception to this was found at Rockford. Behling, the teacher/coordinator at this program, expressed the feeling that individual study rooms served a very important function in that the students could get away by themselves and not be disturbed while studying. Teacher/coordinators at some programs cited this lack of individual study rooms to be one of the weaknesses in their programs.

A wide variety of instructional materials were observed to be available at the ESL programs. These materials included: programmed texts, slide-tapes, traditional texts, paperback novels, newspapers, magazines and Occupational Exploration Kits. The program facilities were reported to be available to students at night in at least three locations.

IT IS RECOMMENDED THAT READING SPECIALISTS OR PARA-PROFESSIONALS TRAINED IN REMEDIAL TEACHING BE INCLUDED IN ESL PROGRAMS.

IT IS RECOMMENDED THAT ESL PROGRAMS INCLUDE STAFF WHICH HAVE BACKGROUNDS IN REMEDIAL TEACHING (READING).

A characteristic found to be common to many of the ESL students (as expressed by teachers and teacher/coordinators) was a low reading level. The need for a reading specialist or a remedial teacher was cited by teachers or teacher/coordinators in three of the six ESL programs responding to the Teacher/Coordinator and Administrator Questionnaire. Of the three remaining programs, one program had a teacher with experience in special education, while questionnaires from the other two programs showed no indications of staff with backgrounds in a related field. Weddle reports in "Student Characteristics" that ESL per student mean reading level was 7.64 (grade level equivalent) in the two programs (132 students) reporting.

Student Training Stations

A major task of the coordinator is to place students at training stations. This task has been met with varying degrees of success. In 25 WECEP programs reporting the number of students enrolled and the number of students employed, 15 (60%) had greater than 50% of the students employed, ten programs (40%) had greater than 75% employed, and seven programs (28%) had greater than 90% employed. A total of 491 students were enrolled in these 25 programs (an average of 19.6 students per program) and 331 students (63%) had been placed at training stations.

In two ESL programs reporting the number of total students and the number of students employed, 55 (60%) of the students had been placed at training stations. One program had 53% of the students placed at training stations and the other program had 73% of the students placed at training stations.

IT IS RECOMMENDED THAT TECHNIQUES OF SELLING BE INCLUDED IN PRESERVICE AND INSERVICE TRAINING FOR COOPERATIVE EDUCATION COORDINATORS.

In trying to determine successful methods for placing students at training stations, evaluation team members questioned coordinators as to their activities in securing training sites and as to their relationships with employers. It was found that many coordinators viewed the task of obtaining training sites as an exercise in salesmanship. They stated that there was a need to "sell" the WECEP concept and the merits of the individual students as well as selling himself/herself - the coordinator. These coordinators stated that they found it necessary to maintain close contact with each student on the job and with

his employer in order to maintain a close working relationship. Placing the best suited student (as determined by interest, ability and attitude) was the goal of some coordinators, while others placed the student in the first job that became available.

At a few programs visited, the coordinators stated that they would not accept a student into the program unless a training station was first obtained for that student. This policy tends to inflate the percentages given above, but this is offset by some programs where the policy is that they will not place the student until he/she has undergone certain training.

IT IS RECOMMENDED THAT PROGRAM DESIGNS PROVIDE FOR MAXIMUM FLEXIBILITY IN COORDINATOR AND STUDENT SCHEDULES.

Some reasons cited from the Teacher/Coordinator and Administrator Questionnaire for not placing students at training stations were: tight job market, bad scheduling within the school system, and a few reported students' attitudes. These same reasons were reiterated to evaluation team members during the empirical study. Some scheduling problems which notably hindered student placements were as follows:

1. Rigid school system where the student was required to complete five or more academic subjects.

2. Teacher/coordinator supervising more than four class periods or supervising class periods during both halves of a split shift.

3. Teacher/coordinator supervising classes at more than one school.

Special Programs

Program for Students with Impaired Hearing

IT IS RECOMMENDED THAT THE COOPERATIVE EDUCATION PROGRAM FOR PERSONS WITH HEARING IMPAIRMENTS SHOULD ADOPT THE FOLLOWING GENERAL TERMINAL OBJECTIVE: UPON COMPLETION OF THE PROGRAM THE GRADUATE WILL FUNCTION AS A SELF-SUFFICIENT MEMBER OF SOCIETY.

The present structure of the program limits the student to two semesters and an optional summer orientation session. Considering the broad range of levels of social and vocational skills possessed by the students upon entrance into the program, it is felt that the program, as presently restricted by time, limits the number of students who can become fully functioning in society. The program director, Gary Austin, expressed concern that follow-up studies conducted by the staff showed that three-quarters of the graduates returned to the shelter of the home.

With this significant need in mind, it becomes evident that the program objective should be modified to include preparation for living as well as for work. Student interviews revealed that the participants were living in a separate section of the dormitories and had their own special parties. The students interviewed continually referred to hearing people as "outsiders." The picture perceived by the investigators was that of a sheltered living environment, albeit within the framework of that shelter certain policies were designed to motivate the students to independent activities.

We do not feel that integrating hearing impaired students with hearing students would achieve the necessary training and conditioning inasmuch as dormitories themselves are artificial in our society. It would seem preferable to house the participating students in apartments in the community to condition them to living in the "outside" world. This should follow an initial period in a peer dorm group to build self confidence and allow for adjustment to their new work-study routine.

Program for Physically Handicapped

The level of motivation and enthusiasm of the physically handicapped students was notable. How much of this can be attributed to the coordinator and his enterprise in making placements and how much may be attributed to their appreciation of this kind of opportunity cannot be measured. We observed students utilized as group tutors and we observed students responding enthusiastically to the teaching-learning situation despite an oppressively high level of external (to the classroom) noise. The overall condition of the physical plant was deplorable, but Mr. Ahsmann assured the team that the entire building could be evacuated within two minutes; observing the enthusiasm and good cheer of the students throughout the school, the quality of performance of program participants and the availability and helpfulness of auxiliary personnel, we can only say that it would be nice to provide these deserving students with better facilities, but we cannot say that better facilities would appreciably improve the quality of their education.

TEACHER/COORDINATOR PROFILE

by
Louis Holtz

WECEP

Academic Qualifications

According to Teacher/Coordinator and Administrator Questionnaires, 25 WECEP coordinators responding, 13 (52%) hold bachelor's degrees, ten(40%) hold master's degrees, and two (8%) hold degrees or certificates beyond the master's level. There is a wide range of background training. Major fields listed show that 52% listed counseling, guidance, psychology, vocational rehabilitation and education. Educational administration was listed in 8% of the cases. Physical education, agriculture, biology and chemistry and social studies made up the remaining 40%. These figures are based on the highest degree obtained in formal education. Nine (36%) of these teacher/coordinators have listed additional course work relating to the special needs student.

The WECEP teacher/coordinators, as a group, are apparently appropriately qualified for the academic aspects of their endeavors; we deduce this from the mean GPA gains reported by Weddle.

Personal Qualifications

Age for the WECEP coordinators ranged from 23 to 57: the mean age was 34. There were 24 males responding and one female.

IT IS RECOMMENDED THAT WECEP PROGRAMS BE PLANNED SO THAT STUDENTS HAVE BOTH A MALE AND A FEMALE ASSOCIATED WITH THE PROGRAM WITH WHOM TO IDENTIFY.

One female teacher/coordinator stated during a team visit that since most of her students were males, the coordinator should be a male to provide a father figure for these boys. Weddle indicates in his chapter on Student Characteristics that 42% of the WECEP students do not have their real fathers living at home. This tends to support the theory and practice that coordinators should be predominantly male. However, responses by the students from three programs with female coordinators in the Student Personal Questionnaire indicate that they have very positive attitudes toward both the programs and the coordinators. These three female coordinators have 76 students enrolled and 53 (70%) of these students have been placed at training stations. Two of the programs combined had 57 of the students enrolled and 52 (91%) had been placed at training stations. This is definitely superior

to the WECEP average of 63% of the students placed at training stations. At the third program, the female coordinator had 19 students enrolled, but just one of these had been placed at a training station. This teacher/coordinator was assigned to five classes during the school day, seriously restricting the time available to her to seek out training stations.

The majority of the male teacher/coordinators indicated during the team visits that they either had trouble placing female students at training stations or they encountered some difficulty relating to female students in a meaningful way, so that dropouts were a significant problem with female students. Some of these coordinators stated that they could utilize a female co-worker in helping to overcome these two problem areas. Since female students account for 38% of the WECEP population, it is recommended that a male-female team approach be incorporated into programs, especially those in which the teacher/coordinator of one sex experiences difficulty in serving the needs of students of the opposite sex.

Related Experience

IT IS RECOMMENDED THAT COORDINATORS BE SOUGHT WITH DIVERSIFIED WORK EXPERIENCE OR BE ENCOURAGED TO OBTAIN SEASONAL POSITIONS TO GAIN WORK EXPERIENCE OTHER THAN TEACHING.

IT IS RECOMMENDED THAT MEANS AND COORDINATION BE ESTABLISHED TO ENABLE COORDINATORS TO SHARE EXPERIENCES. THIS MIGHT BE FEASIBLE FOR INCLUSION IN SUMMER WORKSHOPS.

Of the teacher/coordinators, 16 (64%) have indicated, in the Teacher/Coordinator and Administrator Questionnaire, past work experience which they felt had helped them in securing training stations. During team visits, teacher/coordinators stated generally that past experience in obtaining personal summer employment has aided them in obtaining training stations; they believed that they were more confident and more at ease when approaching prospective employers. However, some of the teacher/coordinators have stated during the team visits that they have a need to visit other programs to observe methods used to obtain training stations. They also suggested that this activity should be included in the inservice training portion of the State's program.

ESL

Academic Qualifications

Six ESL teacher/coordinators responded to the Teacher/Coordinator and Administrator Questionnaire. One teacher/coordinator held a teaching

certificate, one held a bachelor's degree, and four held master's degrees. Major fields listed were education, guidance, industrial arts, math and sociology. Eleven ESL teachers responded to the questionnaire. Five teachers held master's degrees with one teacher not responding to this question. Major fields listed by these teachers were biology, business education, general science, guidance, history and social studies.

These ESL teachers and teacher/coordinators, as a group, have the academic backgrounds to provide their school leavers with the necessary experience to complete high school graduation requirements (either through the GED or high school credits).

Data were obtained from one program for the 1970-71 school year (its first year in operation) which showed the following:

1. 106 students had been accepted into the program.
2. 26 (25%) had dropped out with no reason available.
3. 21 (19%) completed the GED.
4. Of the 56 students remaining in the program at the end of the school year, 20 (35%) had been placed at training stations.

Of the 50 students that left this program, 14 (28%) had completed the GED and 17 (34%) were employed. No data were available on the balance; possibly some are employed, some may be enrolled in further educational programs. An additional seven had passed the GED but there was no indication that they had been removed from the program rolls.

These teachers and the teacher/coordinator have met the academic needs of more than one-fourth of the students that have left the program. If this is a representative sample of all ESL programs, and considering that these are people who did not previously "make it" in the system, the conclusion may be drawn that the teachers and teacher/coordinators are academically qualified for this task.

Personal Qualifications

All six of the ESL teacher/coordinators responding were males and their ages ranged from 28 to 60, with the mean being 41. Eight male and three female teachers responded. Their ages ranged from 25 to 51, with a mean of 35. Five of the 17 teacher/coordinators and teachers indicated

that they had taken academic course work relating to their present jobs.

An average staff of three persons was found at each program. This included the teacher/coordinator and two teachers. The need for more than one person to operate ESL programs was pointed out by one ESL teacher when she stated: "If there is a personality conflict between the student and teacher, the student is free to go to another teacher to receive his help." The teachers and the teacher/coordinators indicated during the team visits that the students had a wide range of academic deficiencies and it was necessary, therefore, to have teachers available with different backgrounds to help these students. They also indicated that some of the other teachers were presently helping students in areas in which they (the responding teachers) were not grounded.

Data from the Student Personal Questionnaire indicate that students have a high regard for the coordinator-teacher in the ESL program. Students from eight programs responded to the question, "What do you think of the coordinator-teacher? (Check one or more)," yielding 1,333 (97%) positive responses and 41 (3.0%) negative responses. Weddle reports in his study on student gains that"Early School Leaver (ESL) students made very significant gains in attitudes, outlook, and interpersonal skills."

Attitudes

The attitudes of the ESL and WECEP teacher/coordinators and teachers are reflected by the findings in the student gains, as reported by Weddle, by the students' attitudes toward the teacher/coordinator, as reported by this investigator, and also by responses to the first four questions on the Teacher/Coordinators and Administrators Questionnaire.

Program personnel (teachers, teacher/coordinators, and administrators) indicated their attitudes toward these special needs students by their responses to questions in the Teacher/Coordinator and Administrator Questionnaire (101 responding). The majority of these personnel responded to the following questions as indicated below:

1. Which statement best describes the approach that you feel is the most valuable in developing the program of studies for your students?

   73% responded: Giving them practical experience first helps them to appreciate theory.

2. Which statement or statements do you believe apply to your students?

   93% responded: Many have reserves of ability which may be brought out if the right keys are found.

3. Which statement(s) best describes how students are placed in jobs?

   65% responded: The student is placed in a job as a result of his preference expressed to the coordinator.

4. Which statement(s) best describes the relation between the student's course work and his on-the-job training?

   69% responded: Adjunct course work is individualized to meet the student's time and content needs.

These responses indicate that the personnel involved in these programs have faith in the students' ability to perform; it indicates the awareness for the need to take the students' interests and desires into consideration in job placement; and it indicates that program personnel are aware of the students' need for practical experience.

ADMINISTRATIVE ASPECTS OF PART G PROGRAMS IN COOPERATIVE VOCATIONAL EDUCATION

by
Lawrence Weisman
with Robin Stein

Workload

IT IS RECOMMENDED THAT TWENTY STUDENTS PER FULL TIME EQUIVALENT PROGRAM STAFF MEMBER BE ADOPTED AS A NORMAL WORK LOAD. WECEP PROGRAMS SHOULD USE THIS STANDARD WHEN A MAXIMUM OF TWO ACADEMIC CLASSES AND PHYSICAL EDUCATION ARE SCHEDULED IN THE REGULAR PROGRAM AND ADJUSTED ACCORDINGLY FOR DEVIATIONS FROM THIS DISTRIBUTION. THIS STANDARD PRESUMES THAT ESL STUDENTS ARE CARRYING A MAXIMUM OF THREE ACADEMIC UNITS OF WORK, AND SHOULD BE ADJUSTED ACCORDING TO VARIATION IN STUDENT WORK LOAD. ADJUSTMENTS SHOULD ALSO BE MADE FOR SPECIAL FACILITIES AND OTHER SPECIAL CONDITIONS.

A survey of coordinators, teachers, administrators and para-professionals with direct responsibilities for operating Part G programs in Cooperative Vocational Education brought returns from 109 respondents.

In reply to a question on the maximum number of students that one coordinator could supervise under current conditions, 102 respondents had a range of beliefs from nine to 55. The mean of these responses was 19 and the modal response was 20 (32 favored the mode).

When asked, "What changes would you recommend that would increase the number of students that one coordinator might effectively supervise?" they responded as follows:

44 - None, no response, not applicable
3 - Full time assistant coordinator
8 - Full time secretary
2 - Para-professional help
2 - More coordinated effort
7 - Access to school transportation

Significantly, 17 out of 58 relevant responses called for a staff approach. Field observations by the project staff confirmed the value of using some type of team. This judgment was made on several bases: first, that it is economical to utilize lower cost para-professional staff. Second, even using a combination of professionals, it is more economical because time can be scheduled more advantageously. Finally,

there are differentiated talents involved and it is difficult to find one coordinator with the right combination.

Only one respondent suggested the value of prior work experience, but this suggestion was also made by a number of employers on a separate questionnaire. It is also felt that since this response is probably more suitable to a question on effectiveness in dealing with employers and providing job-related information, many respondents may agree with this need, but did not relate it here. We include it here on the basis that effectiveness may also increase capacity: this is especially true of those programs that accept students only when they have job openings.

Job Placement

IT IS RECOMMENDED THAT A MODEL FOR SELF-EVALUATION SHOULD BE DEVELOPED AND PRESENTED IN PRESERVICE AND INSERVICE TRAINING EXPERIENCES.

IT IS RECOMMENDED THAT GREATER LOCAL PUBLICITY SHOULD BE GIVEN TO THE WECEP AND ESL PROGRAMS AND THAT TECHNIQUES, MEDIA, AND CONTENT OF PUBLICITY RELEASES SHOULD BE INCLUDED IN PRESERVICE AND INSERVICE WORKSHOPS.

Sixty eight percent of the respondents felt that they were successful in placing students in jobs; only fifteen percent felt they were not successful. The most common barrier to finding jobs that was stated was the tight job market. Only one respondent gave student age as a barrier. However, in field interviews, a number of WECEP coordinators listed student age as a factor. No one identified personal deficiencies as a reason for failure to attain satisfactory job placements. This gap may be attributed to defense mechanisms, but more certainly, it may be attributed to a lack of understanding of processes of self-evaluation.

From the employers' viewpoint, obtained in a separate questionnaire, more publicity is needed. Of 49 responses to the item, 31 recommended more publicity and of these, 19 specified using civic organizations to reach the business community. Twelve respondents suggested publicizing program results. Five employers, out of 29 responding to the item, indicated that more flexibility in scheduling would help students obtain jobs.

Facilities

IT IS RECOMMENDED THAT CONTRACTS FOR WECEP AND ESL PROGRAMS PROVIDE FOR FACILITIES APPROPRIATE TO THE ACTIVITIES PLANNED.

Sixty five percent of the respondents indicated that their program facilities were adequate while twenty nine percent stated that their

facilities were inadequate. From this we infer that one-third of the programs have inadequate facilities. These data were confirmed by the evaluation team which observed a number of programs housed in cramped or otherwise unsuitable quarters and more scheduled in regular classrooms between other classes. This latter situation limits flexibility and precludes the availability of special displays and equipment necessary to provide the kinds of alternatives in instruction appropriate for these students.

Legal Responsibilities in Transporting Students

IT IS RECOMMENDED THAT ADMINISTRATORS AND COORDINATORS RESPONSIBLE FOR TRANSPORTATION OF STUDENTS WHERE PRIVATELY OWNED VEHICLES ARE UTILIZED REVIEW APPROPRIATE STATUTES AND CODES TO ENSURE THAT THEY ARE MEETING THEIR LEGAL RESPONSIBILITIES.

The Situation

In the conduct of the Part G programs in cooperative education it is necessary for students to be transported between job and school, between job and home and between school and home. Since these travels are necessitated by participation in the program, some coordination or operation of transportation facilities may be required to be performed by school personnel. Solutions to the diverse situations arising out of differences in the environment and in the organization of the different programs have resulted in a variety of solutions.

Transportation of students is both scheduled and unscheduled. Scheduled transportation occurs after a student has obtained employment and needs to move to and from the place of work. Unscheduled transportation arises from a variety of situations; trips for job interviews, trips to obtain physical examinations and work permits, and field trips arranged as a part of the educational program.

Unscheduled transportation is normally supplied by the teacher/coordinator when it is necessary on short notice and when there are few students involved. Given sufficient time and numbers, as with a planned field trip, school buses may be scheduled or chartered.

Scheduled transportation is furnished from a number of sources; school-owned or chartered buses, the teacher/coordinator's personal vehicle, and by contract with private vehicle owners.

The Problem

Where school-owned or commerically operated vehicles are employed, the evaluation team has assumed that the business managers and other responsible administrators are cognizant of the law and have taken appropriate action to meet their legal obligations. Where private

vehicles were used, however, it was evident that many teacher/coordinators and responsible administrators were unfamiliar with the special responsibilities involved. The question therefore evolved as to whether the responsible parties had fully exploited the shelters provided by law. Inasmuch as this question had not been contemplated by either the "Request for Proposal" or by the proposal itself, the question had not been incorporated into the research design. In lieu of a project investigation of this question, which was precluded by time and resources, the staff undertook a review of the statutes to furnish those interested with information to evaluate their own position. We have also formulated some specific recommendations arising out of this review.

Review of Law

Illinois Vehicle Code, Chapter 95.5

Section 10-201 is commonly referred to as the "guest-host" statute. Riders in automobiles are defined in two ways according to this statute; a guest being a person who is not paying the driver for transportation and cannot sue the driver for damages in case of an accident unless he (the guest) can prove that the driver caused the accident by "willful and wanton misconduct." A passenger is one who pays for transportation and can sue.

Monetary compensation is not the sole test in determining guest - or passenger - status; all the aspects involved including the social or business aspects of the trip, whether it promoted mutual interests of both parties, motivating influence for furnishing the transportation and economic benefits to operator or owner may all be considered. (10-201 Note #8) (Dirksmeyer vs. Barnes, 1954, 2 Ill. App. 2d 496, 119 N.E. 2d 813.)

This section (10-201) does not apply to children seven years or younger. (Rosenbaum vs. Raskin, 1970, 45 Ill. 2d. 25, 257 N.E. 2d 100.)

"Despite existence of this section passenger may recover for simple negligence even though he has made no monetary payment for transportation in motor vehicle." (Sinclair vs. Thomas, 1967, 90 Ill. App. 2d 114, 234 N.E. 2d 368) Note 14.

"If carriage of another tends to promote mutual interests of both the person carried and the driver, or if the carriage is primarily for the attainment of some objective or purpose of the driver, the person carried is not a "guest." (Note 14) (Miller vs. Miller, 1946, 345 Ill. 273, 69 N.E. 2d 878.)

"Passengers in a vehicle, having an opportunity to learn of danger and avoid it may not omit reasonable and prudent efforts of their own to avoid danger merely because someone else is driving." (Note

168)(Ames vs. Terminal R. Association of St. Louis, 1947, 332 Ill. App. 187,75 N.E. 2d 43; Jones vs. Traver, 1935, 275 Ill. App. 181.)

Section 8-101 of the code states that it is unlawful for anyone to transport minors "to or from educational or recreational facilities" unless the person has filed proof of financial responsibility with the Secretary of State.

Section 8-102 states that the proof of financial responsibility may be given by the following methods:

1) A bond as provided in Sec. 8-103
2) Insurance policy as provided in Sec. 8-108

Section 8-108 of the code states that in order for an insurance policy to be used as bond it must meet these requirements:

1) The policy must be in a "solvent and responsible company" authorized to do business in the State of Illinois and having admitted net assets of not less than $300,000.

2) It must insure the owner of the vehicle or his "agent" against liability for injury to or death of any person or for damage to property other than said motor vehicle.

Section 8-109 gives the requirements of the policy. It may cover one or more motor vehicles and must insure the owner for $15,000 for each vehicle on that policy. The policy must provide for the "payment and satisfaction" of any judgment rendered against the owner within 30 days after it is final.

The policy must contain a description of each motor vehicle, giving the manufacturer's name and number,and state license number.

School Code

The latest school code was not available to the investigators at the time of the preparation of this report. Certain discrepancies were noted in the previous code; to wit, a requirement for a chauffeur's license which is no longer available in Illinois, and a lower minimum insurance than required by State statutes.

Conclusion

We conclude that there is a necessity for coordinators and administrators to ensure that individuals with whom they may contract who are not

regularly operating commercial vehicles, meet the requirements outlined in paragraph one above. Since the persons letting the contract are responsible for the well-being and safety of the students, then they are responsible to see that when the students are transported under their supervision, it is in a safe and lawful manner. It may be reasonable to assume that persons regularly in the business of transporting passengers are aware of their legal responsibilities, but it is questionable whether a prudent man would make such an assumption where persons without such experience are involved.

ADDED COSTS ALLOWED TO EMPLOYERS AND STUDENTS

by
John Hendricks and
Lawrence Weisman

General

Certain costs arising out of special conditions created by the nature of the Part G programs may be compensated under provision of the act and as outlined in A State Plan for the Administration of Vocational and Technical Education. These costs fall into two major categories: added costs to employers and added costs to employees.

Most commonly, added costs to employers refers to a differential between the worth to the employer of the new student worker and the worth of a worker obtained from the general market. Added costs to the students cover primarily additional transportation costs resulting from the additional travel leg, home to school to work (as opposed to the normal home to work movement), and other expenses necessary to gain employment which the student may not be able to meet. Frequently added costs funds are utilized for transportation when reasonable public transportation is not available.

Added Costs to Employers

IT IS RECOMMENDED THAT ADDED COSTS TO EMPLOYER BE ELIMINATED EXCEPT FOR HANDICAPPED STUDENTS AND UNDER EXTREME MARKET CONDITIONS.

Employers realize they will have to provide on-the-job training when hiring any new employee. The same will hold true for any student who is hired. Employers also realize that the on-the-job training expenses must be borne by them and they take this into consideration when hiring new personnel. Further, employers interviewed commented that they would not hire a new employee unless they need additional help. Employers also stated that when hiring the student they do not take into consideration the added cost benefits that they could receive; they are only interested in filling positions with responsible people.

Employers are willing to pay a fair wage for work rendered; ten percent of the student workers were receiving above minimum wage, confirming the willingness of employers to pay for services rendered. Employers expect to pay a fair wage and they will not retain employees who do not produce or develop after training. All of the employers interviewed felt that if the students produce, then they would pay the student the same wage as the regular employee. Turnover is costly to employers and they would generally prefer to pay a fair wage than train a new employee.

The project survey of employers revealed that 71% did not receive added costs. An additional factor obviating the need for added costs to the employer is that a minimum wage of $1.20 per hour (Federal) and $.90 (State) is now legal for student trainees.

The use of added costs is an artificial device which tends to defeat the idea of orienting students to real life and work by giving them real work experience.

Added Costs to Students

IT IS RECOMMENDED THAT ADDED COSTS TO STUDENTS BE UTILIZED ONLY FOR AD HOC PRESSING CIRCUMSTANCES.

The evaluation team believes that students in a work experience program should experience the total aspects of work. When they become permanently employed no one will be there to supply them with money for transportation, and other normal expenses of employment; they will have to make it on their own. Those students who continue to work at their job stations during the summer months will not be subsidized by the school and these students have indicated that they will be as pleased to have the opportunity as they are to have the opportunity during the winter.

Not all programs provided added costs to the student and these programs functioned on a par with those that paid added costs. The students interviewed felt that paying one's own transportation to and from work was part of work. Further, the students must get to and from school and the jobs they are provided with do not conflict with this normal function.

It is necessary to point out that the average allotment for both categories of added costs per program is $6,250 for WECEP and $5,378 for FSL programs. These are monies that could be channeled into better alternative uses, such as obtaining more class related material or enrolling additional students. Eliminating these costs would bring the cost per student (see cost-benefit study) below the cost of regular programs, making the special programs more attractive to more schools, even districts that are not eligible for special funding; thus providing more widespread opportunities in work experience.

IT IS RECOMMENDED THAT TRANSPORTATION ALTERNATIVES BE EXPLORED TO FIND THE ONE THAT PRODUCES THE MOST DESIRABLE COST-BENEFIT RATIO.

The project staff recognizes that each program needs to be considered separately, but hopes that the recommendation would lead to more intensive exploration of other alternatives than state finance. Commercial taxis transporting several students on each trip may be less expensive than contract buses, for example. We found no program compensating students who rode public mass transit, but on the other hand, found no program that charged students a fair rate for riding specially scheduled school buses; this seems inequitable.

In several instances coordinators were transporting their students personally. In each of these cases the coordinator was held to a substandard student load and was experiencing difficulty performing coordinator functions. Since in each case the workload was less than 15, or five under our recommended standard, there is a 25% loss of investment valued at approximately $5,000. This represents a per student cost (at a workload level of 15) of $333 over the mileage paid the coordinator. Divided by 180 days in the average school year, the excess cost per student per day amounts to $1.85; considering also the general loss in effectiveness, this is a very costly alternative.

APPLICATIONS OF A COST-BENEFIT MODEL TO PART G PROGRAMS IN COOPERATIVE VOCATIONAL EDUCATION

by
Lawrence Weisman and
John Hendricks with a
commentary by Richard
H. P. Kraft

General Findings and Recommendations

Based on the normal examples utilized we find that the WECEP and ESL programs produce substantial economic returns and are fiscally sound alternatives, from an internal school management viewpoint as well as a societal viewpoint.

IT IS RECOMMENDED THAT THE MODEL DEVELOPED BE ADAPTED TO EACH PROGRAM AND USED AS A BASIS FOR JUSTIFYING CONTINUED AND EXPANDED FUNDING OF WECEP AND ESL PROGRAMS.

IT IS RECOMMENDED THAT SOME DIFFERENTIAL BE PROVIDED FOR AT LEAST TWO YEARS FOR EACH NEW PROGRAM ESTABLISHED SO AS TO COMPENSATE FOR INEFFICIENCIES DURING THE DEVELOPMENTAL PERIOD AND AS AN INCENTIVE FOR INNOVATION IN THE EVENT THAT FEDERAL FUNDING IS DISCONTINUED.

Work Experience and Career Exploration Programs

Employment oriented programs for economically, socially and culturally disadvantaged persons have assumed major importance in the United States in the past five years. By their very size they command attention. But size is not necessarily a valid measure of success. To determine success, benefits need to be identified. Cost-benefit is a useful indicator of success, since it is given in measurable terms.

The purpose of this portion of the report is to assess the benefits of the Work Experience and Career Exploration Programs (WECEP) and the Early School Leaver (ESL) programs, as funded under Part G, Vocational Education Act as amended in 1968, and to compare benefits to costs to determine the effectiveness of these programs; the recommendations made stem from this cost-benefit analysis.

The cost-benefit model for WECEP programs, included as Appendix A, will be used to analyze data that have been collected from the various instruments used and from interviews with students, teacher, coordinators and administrators. The model will explain the benefits that accrue from the WECEP program and the costs that the programs require to be carried out effectively.

Since this report is part of a statewide evaluation, averages have been employed to make the model credible for the various schools that made use of the federal funds to support the programs. By using this approach, the poorer economic districts will not be compared to the richer economic districts that are able to offer greater monetary expenditures per year per student.

Objectives

The basic objectives of the WECEP programs were tabulated by close examination of all the contracts approved by the Board of Education and, therefore, represent all the districts participating. The objectives, in no specific order, are to:

1. improve the attendance rate.
2. improve students' grades.
3. develop favorable attitudes toward the program.
4. change students' attitudes toward school (i.e., that they would see school as a meaningful and useful experience.)
5. improve the self-image of students.
6. help students to complete current school year.
7. provide students with marketable skills.
8. provide successful experiences for students.
9. reduce the dropout rate.
10. establish a remedial program to meet individual needs of potential dropouts.
11. provide preparation for entrance into specialized vocational programs.
12. provide work experience for potential dropouts.
13. provide students with financial assistance.
14. provide an opportunity for potential dropouts to explore career development opportunities.
15. provide assistance with personal problems as well as academics.

A standard of success is needed to determine when the objectives are attained. Mr. Robert Beach, Superintendent of Adult Education in the Joliet district expressed the consensus of coordinators and administrators when he said, "If one out of every four students is reached by participation in the Part G programs, then I would consider the program worthwhile and successful." Recognizing that this is a "better than nothing" approach for measurement, but at least a beginning, this report will consider that, if one out of every four students is reached, then the program is effective and successful.

Cost Analysis

Based on the normal example utilized we find that the WECEP programs could be operated within the funding provisions of standard vocational programs.

IT IS RECOMMENDED THAT SOME DIFFERENTIAL BE PROVIDED FOR AT LEAST TWO YEARS FOR EACH NEW PROGRAM ESTABLISHED SO AS TO COMPENSATE FOR INEFFICIENCIES DURING THE DEVELOPMENTAL PERIOD AND AS AN INCENTIVE FOR INNOVATION IN THE EVENT THAT FEDERAL FUNDING IS DISCONTINUED.

Table I

Differentials: Total Cost and Major Cost Factor, WECEP

Regular Secondary School		WECEP Programs	
Cost per student	$1,124[1]	Cost per student	$1,305
	Differential = $181		
Teacher contact hours	125	Teacher contact hours	80
(25 students x five periods)		(20 students x four periods)	
	Differential = 45 hours or 36%		

For high school districts of 1,000 to 3,000 students, the mean cost per student per school year is $1,124. The figure used is an average of the amount spent on students attending these high schools and is representative of the typical high school participating in the WECEP program.

---

1 Office of Superintendent of Public Education, Study of Illinois School Districts Effort and Ability Factors, (April 1972).

The figure $1,305 for the WECEP student was derived as follows: the typical school day is seven periods, all of which require some kind of supervision and overhead whether the period is an academic one or not. Excepting those programs that utilize self-contained classrooms, we find that the model program places the WECEP students into two regular academic classes plus physical education each day. Thus, three-sevenths of $1,124, or $487, is chargeable to each WECEP student out of regular funds. The balance of the student's allocated funds (from state and local sources) remains in the general funds for the benefit of other activities. In addition, dividing contract allocations by enrollments, the average WECEP student is allocated $818 from special funds, to total $1,305.

As the figures convey, the program cost per WECEP student is more expensive than the cost per student of regular programs, but it must be taken into consideration that the figure of $818 is an average of all programs, based on contract budgets, and should probably be lower, because in many instances the total dollar amount of the contract is not utilized; however, this is probably offset by the need to budget district administrative costs into the contracts. Further, the WECEP student being served in the program is not the typical junior high or senior high school student. His or her needs are much greater, as Weddle points out in his accompanying report dealing with student characteristics, and would occupy disproportionate staff time if he/she remained in regular classrooms. Thus, although it may appear superficially that WECEP students cost more to educate, it is probably less expensive to provide these programs than to provide for them in conventional classes. The differential shown in Table I, $181, if taken as a final calculation, is still less than the approximately $200 provided for regular vocational programs, making it possible to continue these programs even if federal funding should be discontinued.

Contact Hours

The next part of the analysis deals with student contact hours. The contact hours were computed by multiplying the number of students per class times class periods. The administrators interviewed tended to consider that the coordinator met with only 20 students each day while the regular classroom teacher met 125 students each day. This is not a fair estimate of productivity, since the coordinators provide teaching or supervision for the balance of the day for the WECEP students. Someone would have to supervise lunchroom, study hall or minor electives if these students were in school, and these are the students who would require the most supervision in these activities. In this time the coordinator is also generating two to three credit hours for each student.

Other Costs

Another factor reducing the cost differential between regular programs and WECEP programs is savings on plant overhead costs resulting from time spent on the job. Currently only 63% of students enrolled are employed. As employment increases, costs per student should decrease, particularly if our recommendation to reduce or eliminate transportation subsidies is followed. Further, many programs are new and have not enrolled twenty students. Established programs can accommodate more students, with the optimum being between 20 and 30 students per coordinator.

Conclusions Pertaining to Costs

We conclude that as the programs mature the discrepancy will diminish and the costs of WECEP programs may even fall below the costs of regular schooling. It must also be concluded that the WECEP student is no longer the behavioral problem in the regular classes that he was prior to participation in the program; this fact was verified by interviews with teachers, coordinators and administrators. From information such as this, it can now be assumed that the regular teacher could possibly increase his or her class size because he/she no longer has to continually battle the WECEP student. This fact alone would help decrease the discrepancy between regular teacher contact hours and contact hours of the coordinators. Thus, in real terms, the discrepancy is not as great as it appears on the surface.

Benefits

The tables below summarize benefit data collected from the Student Personal Questionnaire, the Employer Questionnaire, the Survey of Former Students and from interviews with those in contact with the WECEP program.

Table II
Student Personal Questionnaire

Questions and Answers	Percentage
1. I like the program because:	
a. I am earning some money	a. 51.4
b. I am learning about work	b. 51.4
c. It helps me in school	c. 42.1
d. I feel more important	d. 27.8
e. I feel like I can hold a job now	e. 36.3

Table II (continued)

Questions and Answers	Percentage
2. The program is:	
a. good	a. 54.4
b. fair	b. 37.5
c. bad	c. 1.6
8. Will you finish the program?	
a. yes	a. 78.4
b. no	b. 1.8
c. don't know	c. 18.6
9. Would you recommend the program to a friend?	
a. yes	a. 89.7
b. no	b. 7.2
11. Have you ever had a job before?	
a. yes	a. 68.3
b. no	b. 30.2

The scope of benefits include students having their own money and students having improved attitudes toward strangers and elders, as cited in Weddle's analysis of student gains. Table II also shows that several other objectives of the programs have been reached. When the data are analyzed with the understanding that only 63% of present students enrolled are employed, their significance is even more impressive; as the percentage rises, the impact will increase. These students are helping family finances and learning about work. The discrepancy between 63% and the 51.4% shown on the Table may have occured for several reasons: some students may not have realized that they could reply to more than one question; some may have left the question blank; some may not have had these responses high on their personal priorities.

Table III summarizes key responses from the Employer Questionnaire. As is shown in Table III, the majority of the students would not have been employed without the aid of the school and approximately half would not have been kept on the job without the direct aid given by the coordinator. Also, it may be observed that the students have made substantial positive changes in other areas besides job performance. The table evidences further that most of the employers are willing to continue to participate in the program. The gains made in these areas indicate the success of these programs.

Table III
Employer Questionnaire

Question and Answer	Number of Responses	Percentage
1. Would you have hired these students if they had applied on their own without the support of the school?		
a. yes	a. 37	a. 37.4
b. no	b. 52	b. 52.5
c. maybe	c. 9	c. 9.1
d. no response	d. 1	d. 1.0
2. Would you have kept these students on the job without the counseling and training given by school personnel?		
a. yes	a. 41	a. 41.4
b. no	b. 38	b. 38.4
c. maybe	c. 15	c. 15.1
d. no response	d. 5	d. 5.1
3. Do you feel this student will be able to make it on his own?		
a. yes	a. 74	a. 74.7
b. no	b. 13	b. 13.1
c. maybe	c. 8	c. 8.1
d. no response	d. 4	d. 4.0
4. Have you noticed any improvement in this student other than job skills?		
a. yes	a. 81	a. 81.8
b. no	b. 12	b. 12.1
c. no response	c. 6	c. 6.1
5. Will you continue to participate in this program?		
a. yes	a. 81	a. 81.8
b. no	b. 2	b. 2.0
c. undecided	c. 7	c. 7.1
d. no response	d. 9	d. 9.1

Table IV

Survey of Former Students

Question and Answer	Percentage
1. What are you doing now?	
a. Working	a. 38.7
b. In school	b. 23.8
c. Neither	c. 19.0
d. Both	d. 15.5
2. Did you finish the Coop program?	
a. Yes	a. 33.3
b. No	b. 58.9
3. How does your future look now?	
a. Good	a. 60.7
b. Fair	b. 33.3
c. Bad	c. 3.6
4. Do people treat you better now?	
a. Yes	a. 38.7
b. No	b. 19.0
c. Don't know	c. 40.5
5. How do you get along with older people and strangers now?	
a. No different than before	a. 55.4
b. Better	b. 41.7
c. Worse	c. .6
6. Are you glad you were in the program?	
a. Yes	a. 95.2
b. No	b. 3.0

Table IV deals with the Survey of Former Students, which was done to determine the success or failure of the program. But since the programs are relatively new, the sample (N = 39) we are dealing with here is small. However, it does seem to illustrate that gains are being made in the programs.

As the table shows, 39.3% of the former WECEP students are still in school and 15.5% of these are still working. The figure could not be 100% because it is impossible to redirect all of the potential dropouts. Additionally, from the projected success rate of 25%, it is seen that since 54.8% are still in school, or working, the program may be considered successful. The table also illustrates that the objectives of the program regarding improved attitudes are being met.

Other benefits were observed by the evaluation team during the scheduled program visits that were not apparent in the preceding tables. Students, coordinators and administrators believe the programs are beneficial for many reasons. Attendance, as reported by administrators and coordinators during the interviews, by these students has improved markedly. Their grades have also improved on an individual level, and also in comparison to the control group. These students have developed more positive attitudes and their self confidence has improved. Many of the students interviewed now feel they can complete high school, not just the school year. Many students expressed gratitude that they were able to participate in the program. It had given them new direction, and the majority wanted to participate in other work experience programs as they progress through high school. The program has given them insight on work and career possibilities. Table IV shows that 62.5% of the former students are either working or in school; a strong gain on the ultimate objective of the program.

To conclude the section dealing with benefits, a few points need to be stated illustrating how society benefits from WECEP. Giving these students a chance to taste success and become productive will have a great influence on the rest of their high school careers and lives. Most are better able to cope with high school and they will graduate; some, not inclined to school by nature, will have started acquiring marketable skills at an early age and become job oriented. From the training they received in WECEP, they will be more likely to obtain some kind of employment. Since this is the case, it will help reduce future welfare rolls and the spiralling costs of crime, which are now recognized to corrlate with poverty.

In comparing all aspects of costs to benefits, we find a positive ratio. We therefore recommend that WECEP should be continued where programs exist and expanded to localities where WECEP is not now present.

Table V
WECEP Cost-Benefit Model Application[1]

Net Gain = Benefits - Costs

NG = $550 - 0 = $550 per student

Benefits:

Redeemed Expenses:

Reduced Supervisory Costs[2]	$500.00
Materials and Supplies[3]	50.00
Total Benefits:	$550.00
Costs in Excess of Regular Programs	None

∴ We would accept the program without need to consider other redeeming social and economic values.

---

[1] The model is hypothetical in that it assumes operation without Federal funds; however, data are based on statewide averages from Tables I and II.

[2] This assumes that a group of 20 problem students would require at least one full-time equivalent staff member from such personnel as counselor, custodian (repairs for vandalism), truant officer, disciplinary officer, remedial teacher and even the regular classroom teacher in terms of disproportionate time. Most administrators would argue that there is no way to reduce costs of fractional people, but these people are always in short supply and conserving their time here will produce better quality service elsewhere.

One full-time staff equivalent	$10,000
÷ total number of students in program	20
= per pupil cost	$ 500

[3] An arbitrary figure to cover the materials and supplies necessary to repair or clear damages from acts of vandalism associated with maladapted, disoriented students ($50).

Early School Leaver Programs

The Model

The cost-benefit model for the early school leaver program will utilize the same model as the WECEP analysis (see Appendix A). However, the ESL program will be analyzed from a societal viewpoint because these programs are outside the regular high schools and the costs do not interact with the costs of the regular high school program; it is an external management problem.

The observations that are made derive from a study of the instruments, interviews with students, coordinators, administrators and employers. The data are based on a representative school district and therefore will serve as a model which individual districts may use in examining their own cost-benefits if the model data appear too remote from their own situation.

Objectives of ESL

The following objectives of the ESL program are listed in no particular order. They do encompass the objectives of all the programs and were derived from careful study of the contracts approved by the Illinois Board of Education. They are:

1. to provide the student with the information which will improve his job skills and general related information which will make him a better employee.

2. to develop a more relaxed and a more individualized learning atmosphere away from the regular classroom situation.

3. to provide a flexible program endeavoring to meet the needs and interests of each individual.

4. to act as an instrument for helping the student who wants to help himself.

5. to provide academic and vocational credit to be applied toward graduation, if desired.

6. to provide means of additional training in a specific field or vocation, if desired.

7. to provide employers of the community with a source of capable employees.

8. to provide a counseling service to assist the student in making vocational, academic and personal decisions, rather than directing him.

In dealing with objectives of the program some sort of success gradient must be established: as it was established in the WECEP analysis, a factor of helping one out of every four students is considered success; therefore, the report will utilize this gradient of success.

Cost Analysis

Based on the normal example utilized we find that the ESL programs could be operated within the funding provisions of standard vocational programs.

IT IS RECOMMENDED THAT SOME DIFFERENTIAL BE PROVIDED FOR AT LEAST TWO YEARS FOR EACH NEW PROGRAM ESTABLISHED SO AS TO COMPENSATE FOR INEFFICIENCES DURING THE DEVELOPMENTAL PERIOD AND AS AN INCENTIVE FOR INNOVATION IN THE EVENT THAT FEDERAL FUNDING IS DISCONTINUED.

Table VI
Differentials: Total Cost and Major Cost Factor, ESL

Regular Secondary School		ESL Program	
Average cost per student	$1,124	Average cost per student	$1,044
	Differential = $80		
Teacher contact hours (5 x 25 = 125)	125	Teacher contact hours	70

As Table VI illustrates, the ESL program compares quite favorably with the regular high school program in terms of cost of educating one student. The figure $1,124 was derived from the average amount expended per student in a district high school of 1,000 to 3,000 students. This figure was chosen because it closely represents the districts in which the ESL programs operate.

The figure for the ESL student of $1,044 was calculated as an average amount expended to educate the ESL students in all districts that participate. It must be pointed out that not all districts spend $1,044; some are budgeted for more and others less, and there is an additional possibility that they will spend less than the budget, or contract allocations, allow.

In finding average costs, we have computed data from two distinct ESL programs.

Table VII
Computation of ESL per Pupil Costs

	Program A	Program B
Salaries	$31,602	$34,750
Secretarial(clerical)	4,000	2,750
Texts and other study aids	1,050	1,200
Custodial and utilities	1,588	1,000
Rental of equipment and building	2,400	3,000
Added costs to students	1,500	1,000
Added costs to employers	5,750	5,500
TOTALS	$47,890	$49,200
		47,890
Combined Totals		$97,090
Total students enrolled:		÷ 93
Average cost per pupil:		$1,044

Contact Hours

In dealing with student contact hours, the regular school teacher shows greater productivity in terms of credit producing hours. However, the coordinator is involved in so many tasks such as individual counseling, finding jobs, liaison between students and employer, family counseling, and coordination, which are equivalent, timewise, to lunch and study hall supervision, teaching minor electives and regular school advising and counseling, that the real contact hours are greater than normally conceded.

In comparing productivity with regular programs, we took the position that if these students had not dropped out of high school, they would be involved in seven periods per day which would require teaching or supervision. By substituting work for the ancillary activities which are not credit producing, we can roughly equate the productivity in total contact hours; however, allowing for flexibility in the ESL programs wherein these students may proceed at a slower rate, we used six contact hours per day per student and computed as follows:

246	-	total number of students enrolled
x 6	-	daily contact hours
1,476	-	total contact hours
÷ 21	-	teachers, coordinators and para-professionals
70	-	teacher contact hours

The achievement of a low per pupil cost with a lower rate of productivity may be attributed to two factors: first, economies derived from use of para-professionals; and second, the low facilities overhead costs. The ESL costs should be adjusted upward to include district administrative costs, as they were included in the figures available on regular programs, but were not available separately at the time of the preparation of this report for adjustment of the ESL figures. This adjustment would probably bring the two average cost per student figures in balance.

Thus, it can be stated that when the type of student enrolled in ESL and the jobs the coordinators must perform are taken into consideration, and the costs are understood as costs of a special program, the costs of serving the ESL student are moderate.

Benefits

The tools that were employed to quantify benefits accruing were the Student Personal Questionnaire, the Survey of Former Students, the Employer Questionnaire, and interviews and observations made by the team of investigators during visits to the programs.

From the responses given in Table VIII, and information given in Weddle's chapter on student gains, one can see quite clearly that the program is benefiting the student. All students enrolled in the program are in it voluntarily to better themselves. They like the program for various reasons, but, most predominantly, because they earn some money and they progress in school. It must also be noted that money earned by these students is going to be channeled back into the local economy.

In examining Table VIII, it is clear that the students do feel they will finish the program, and they feel strongly enough to recommend it to a friend. The table points out that some of the students are married, and/or have dependents and it is not hard to conceive that without the programs, many would end up on the welfare rolls.

Table VIII
Student Personal Questionnaire

Questions and Answers	Percentage
1. I started this program because	
a. I asked to be in it	a. 54.9
b. I was forced to be in it	b. 2.2
c. I was advised to be in it	c. 33.6
2. I like the program because	
a. I am earning some money	a. 51.4
b. I am learning about work	b. 51.4
c. It helps me in school	c. 42.1
d. I feel more important	d. 27.8
e. I feel like I can keep a job now	e. 36.3
3. I feel _____ about being in the program.	
a. Good	a. 54.4
b. OK	b. 37.5
c. Bad	c. 8.1
4. Will you finish the program?	
a. Yes	a. 78.4
b. No	b. 1.8
c. Don't know	c. 18.6
5. Are you	
a. married	a. 3.0
b. single	b. 23.8
c. divorced	c. .1
6. Do you have any dependents?	
a. Yes	a. 6.3
b. No	b. 21.1

Table IX is derived from the Survey of Former Students. The number of former students is limited due to the recent inception of these programs and to the difficulties in contacting former students. We recognize the limitations and possible biases in this type of survey and have made our observations conservatively.

Table IX
Survey of Former Students

Questions and Answers	Percentage
1. What are you doing now?	
a. working	a. 38.7
b. in school	b. 23.8
c. neither	c. 19.0
d. both	d. 15.5
2. If you are now working, what is your wage?	
a. $50/week	a. 10.1
b. $50 - $75/week	b. 23.8
c. $75 - $100/week	c. 8.9
d. $100/week	d. 13.7
3. If you are now working, is your job better than before you were in the program?	
a. yes	a. 38.1
b. no	b. 8.1
c. no response	c. 53.0
4. Did you finish the Coop program?	
a. yes	a. 33.9
b. no	b. 58.9
5. Are you glad you were in the Coop program?	
a. yes	a. 95.2
b. no	b. 3.0
6. How does your future look now?	
a. good	a. 60.7
b. fair	b. 33.3
c. bad	c. 3.6

Table IX (continued)

Questions and Answers	Percentage
7. How did you feel about your future before you were in the program?	
a. good	a. 13.1
b. fair	b. 45.2
c. bad	c. 40.5
8. Do people treat you better since you were in the Coop program?	
a. yes	a. 38.7
b. no	b. 19.0
c. don't know	c. 40.5
9. Do you get along with others better since you were in the program?	
a. yes	a. 41.7
b. worse	b. .6
c. no different	c. 55.4

As Table IX illustrates, as many as 78% of the students are back in school, or working, or both, which is three times the previously established acceptable success rate of 25%, proving the program is successful in this respect. From question two it is pointed out that those former students who chose to work are now making enough money to support themselves and their jobs are better than the ones they had before participation in the program. From the data we observe that the reason for the more positive outlook of the students now is directly related to their participation in the program. These findings meet the objectives established for the programs.

Table X summarizes the employer's view of the program. This table is one of the most important because these are the people that the ESL student is going to have to answer to for the rest of his life.

Table X
Employer View of ESL

Questions and Answers	Number of Responses	Percentage
1. Do employers pay above minimum wage?		
a. Yes	a. 16	a. 69.6
b. No	b. 3	b. 13.0
c. No response	c. 4	c. 17.4
2. Would you have hired these students if they had applied for employment on the basis of their own merit without school support?		
a. Yes	a. 7	a. 30.4
b. No	b. 12	b. 52.5
c. Maybe	c. 4	c. 17.4
d. No response	d. 0	d. 0
3. Would the student have been kept on the job without the counseling and training given by the coordinator?		
a. Yes	a. 11	a. 47.8
b. No	b. 8	b. 34.8
c. Maybe	c. 4	c. 17.4
d. No response	d. 0	d.
4. Will this student now be able to make it on his own?		
a. Yes	a. 21	a. 91.3
b. No	b. 2	b. 8.7
c. Maybe	c. 0	c. 0
d. No response	d. 0	d. 0
5. Have you noticed any improvement in this student in areas other than job skills (speech, self-grooming, etc.)		
a. Yes	a. 15	a. 65.2
b. No	b. 7	b. 30.4
c. No response	c. 1	c. 4.3

Table X (continued)

Questions and Answers	Number of Responses	Percentage
6. Do you intend to continue participating in the Cooperative Program?		
a. Yes	a. 21	a. 91.3
b. No	b. 0	b. 0
c. Undecided	c. 1	c. 4.3
d. No response	d. 1	d. 4.3

Table X illustrates that many of these graduates are making above minimum wage. Employers that were interviewed tended to hold the belief that they would not have hired these students on the basis of their own merit; establishing that these students need the program for their chance in life. An additional point is brought out in Table X, that these students will now be able to make it on their own. Further, it is illustrated that these students have not only improved in their job skills, but have also improved in other areas such as appearance, self-confidence and interpersonal relationships.

It was stated previously that these programs would also be analyzed from a societal viewpoint. The programs have been able to change the attitudes of the majority of their students. It has taken these students off the street, given them a new outlook on life, and given them the chance to become productive members of society. ESL programs, by making these students productive, will have an impact on future welfare rolls, because in the competitive society that we live in it is difficult to secure suitable employment without at least a high school diploma or its equivalent (GED); without the program, the majority of the students would be occupying the welfare rolls in the near future for they would not be able to find suitable employment. It can be stated also that by taking these students off the streets, it will reduce their likelihood for crime, helping to alleviate the spiraling costs of crime prevention. Table XI indicates the scope of activity and costs of crime in the United States.

Table XI
Total 1965 U.S. Criminal Justice System Costs for Index Crimes[1]

CRIME TYPE	Total System Cost (M)	Number of Crimes	System Costs per Crime (f)	Number of Arrests	System Costs per Arrests (dollars)	Career Costs (dollars)
Willful homicide	48	9,850	4,900	9,400	5,100	12,600
Forcible rape	29	22,470	1,300	14,300	2,000	9,600
Robbery	140	118,920	1,200	54,300	2,600	13,500
Aggravated assault	190	206,700	920	108,000	1,800	9,400
Burglary	820	1,173,200	700	266,000	3,100	14,000
Larceny	500	762,400	660	144,000	3,500	11,900
Auto theft	370	486,600	760	131,000	2,800	11,000
All index crime	2,097	2,780,140	750	727,000	2,900	12,200

[1] Nicholas deB. Katzenbach, Chairman, President's Commission on Law Enforcement and Administration of Justice, The Challenge of Crime in a Free Society (Washington, D.C.: U.S. Government Printing Office, 1967).

Applying costs against benefits (Table XII), in accordance with the model (Appendix A), we find that the Net Gain is $8,304,or over eight times the investment of $1,044. Even if the student should remain in the program for two years, the Net Gain would be four times the investment. This is assuming that once the student has dropped out of school, he has no right to return to complete his high school education and that this is a special investment. If we assume that this level of education is the right of every individual then the benefits are 100% gain, since these programs cost ($1,044) no more than regular programs ($1,124) and there is little likelihood that these students could reenter and complete regular programs. Finally, since these programs are eligible for supplementary funding from DVTE, funds not needed to compensate for excessive costs, the local contribution would be less than needed for regular programs. However, since the direct benefits of these programs accrue primarily to the state:

IT IS RECOMMENDED THAT THE STATE CONTINUE SOME ADDITIONAL LEVEL OF SPECIAL FUNDING.

Table XII
ESL Cost-Benefit Model Application

Net Gain	=	Benefits	-	Costs			
NG	=	$10,476	-	$2,172	=		$8,304
Benefits:							
Gross Return to State	=	Net Gain[1]	x	Rate of Return[2]	x	Work Years[3]	
GR	=	$984	x	.05	x	30	= $1,476
Redeemed Expenses:							
Reduced Welfare Costs[4]							$6,000
Reduced Public Protection Costs[5]							3,000
Total Benefits							$10,476
Costs:							
Foregone Income[6]	=	Cost per Student[7]	+	Amortization Income[8]			
	=	$1,044	+	$1,128			= $ 2,172

1
Net Gain = Expected Rate of Income for High School Graduate
- Expected Rate of Income without High School Diploma
= $4,510 - $3,526 = $984

2
Rate of Return to State through direct and indirect taxes on net increase to GNP is commonly accepted as 5%. For a discussion see Richard Leftwich, Price, Theory and Resource Allocation (Boston: Holt Rinehart and Winston, Inc., 1965), p. 89.

3
An arbitrary expectancy.

4
Considering a family of four (five was the mean) with income of $3,526 per year, it is clear that over the course of thirty years a variety of welfare services would be required: welfare payments, medical assistance, employment service, support and so forth, we estimate an average of $200 per year. It should be noted that, as defined by the Social Security Administration, poverty level for a family of four is $3,743 while poverty level for a family of five is $4,415 (1969). Thus, the differential would shift the program participant from slightly below poverty level with a family of four to slightly above with a family of five.

[5] Many experts now agree that the preponderance of crime is a function of poverty. Current data are not sufficient to compute differential costs from increases in public lighting, police protection, court and penal systems directly attributable to crimes arising from poverty. Our estimate is conservative; a token at best. For a discussion of the relationship of crime to poverty see Nicholas deB. Katzenbach, Chairman, President's Commission on Law Enforcement and Administration of Justice, The Challenge of Crime in a Free Society (Washington, D.C.: U.S. Government Printing Office, 1967).

[6] Anticipated yield if expenditures were invested over the years.

[7] See Table I

[8] Based on municipal bond rate of 5.25 percent. Selected because public agencies would normally be expected to make conservative investments.

Commentary on Cost-Benefit Study

Introduction

Dr. Richard H. P. Kraft served as consultant to the project staff in the conceptual development of the cost-benefit model. Upon completion of the study we asked Dr. Kraft to comment critically so that those interested in utilizing the model could do so with a full understanding of both the value and the limitations. The full report follows:

Commentary

In evaluating the above research report, consideration was given to: 1) the main program; 2) the model; 3) the sub-models; 4) data requirements, sampling bias, reliability of measurement techniques, observer bias, and statistical contamination.

The authors L. Weisman and J. Hendricks are to be congratulated for having developed an intriguing model for the study of cooperative vocational programs. It can be assumed that the model can provide a measure of the cost-benefit ratio of Part G Programs sufficiently precise to justify its use as a basis for policy decisions. The model will permit the testing of a number of hypotheses relating to the process of assessing the benefits of the Work Experience and Career Exploration Programs, and it will also yield data that should provide useful guidelines for evaluating several aspects of the operation of the program. Perhaps the most appealing aspect of the model is its flexibility. Predictions based upon the existing version can be readily checked, with the possibility of introducing modification or refinements that future empirical data suggest.

In addition to its general usefulness for the aforementioned purposes, the model has the merit of some rather ingenious approaches to several of the difficult problems involved in measuring the benefits of highly complex programs.

It appears that the chief contribution of the proposed Cost-Benefit Model to sound policy decisions lies in the comprehensive view of the issue that it engenders. The researchers presented a way of thinking about programs that compels one to consider systematically all of the factors that are relevant to a decision. This is an advantage of this model that is not to be belittled, for even if not all of the relevant factors can be quantitatively measured, their systematic consideration is likely to lead to better policy decisions than would otherwise be made.

A thorough critical check of the measuring instruments and techniques reveals that the type of reliability calculated and the reliability coefficient were both carefully considered. This validity was reviewed carefully, because interpretation of the research results hinges on the validity of the measures upon which these results are based.

Cross-tabulation and multivariate regression analysis have their own advantages. The former is conceptually simple, requires little calculation, does not presuppose a particular mathematical form of the relationship, and may be preferable, when there are enough observations to permit the analyst to hold constant whatever needs to be held constant. Multivariate regression analysis is more economical with observations in case of continuous independent variables and may be the only feasible approach in detailed studies of differential effects of school and work experiences.

Limitations

The model loses some precision it attempts to develop through the use of many averages, imputed averages, expected "educational outcomes," and probabilities computed from averages. The use of these averages would not be necessary if a reliable control group were present.

Not only are there some elements of benefit and cost that the model does not include, but the estimates for some of the factors that are included are necessarily crude. It is suggested that the use of non-linear estimation methods and simultaneous equations approaches for estimating the impact of the programs should be explored.

Some of the variables used lend themselves more as predictive devices than devices to measure costs and benefits. Through the use of "expected occurrences" and "propensities," administrators could screen out those individuals who do not need the full range of services or any services of the programs. Then, having eliminated these factors, the cost-benefit ratios would determine the effectiveness of the programs for those who need it most.

Conclusion

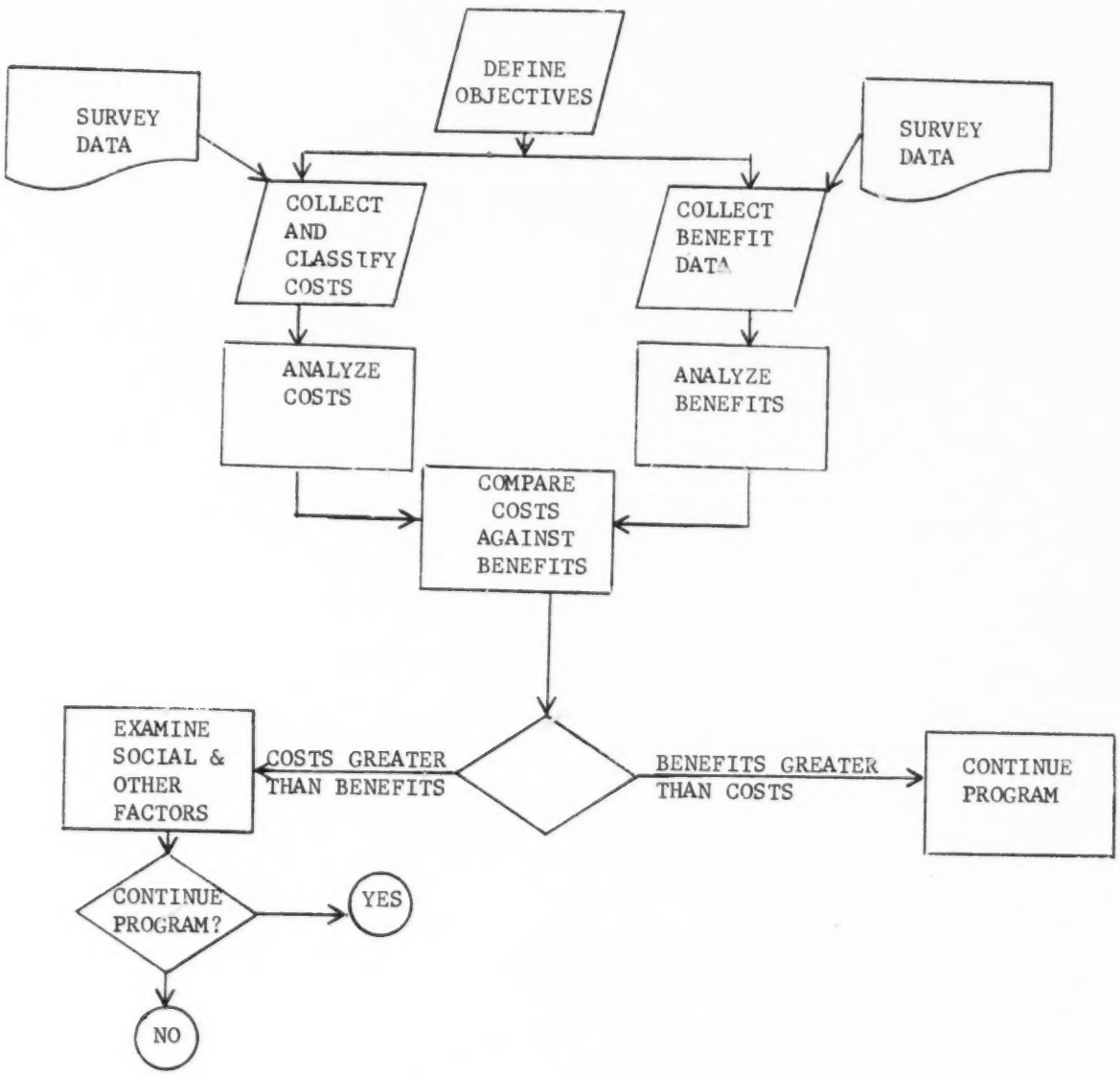
This Cost-Benefit Model should enable the administrating body to determine benefits and costs of an entire program and the various parts of the program. In this way, the ability of the program and its sections to "pay off" can be assessed. The researchers have presented a model that appears to do more than this. Their model is an exciting one because it does extend our present method of analysis beyond the usual "age, education" horizon. The deficiencies are mainly in the data and these problems can be eliminated as the

model is refined. It then can be used both as a predictor and as a measure of "pay off." In this way, the effectiveness of the envisioned manpower programs can be increased.

Differences in concepts and methods limit the comparability of published estimates of the social economic benefits and costs of employment oriented programs for the economically, socially and culturally disadvantaged persons. Despite these variations, however, it appears that the model suggested by the researchers is a socially profitable undertaking. At the very least, it does not appear inferior, in terms of output contribution, to investment of the resources of society in tangible capital.

APPENDIX A

Cost-Benefit Model



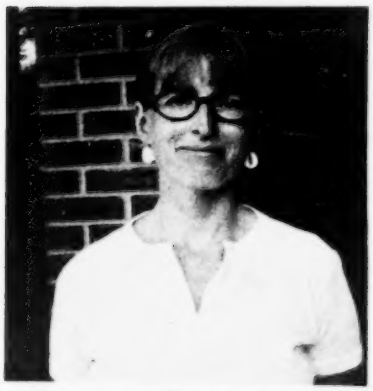
THE PROJECT STAFF

ROSE MARY CARTER, Research Associate, is Assistant Professor of Home Economic Education at Southern Illinois University, Carbondale. Dr. Carter received her Ph.D. in Home Economics from Purdue University and has had five years experience in supervising teacher and curriculum development, both pertaining to disadvantaged students. For the past two years, Dr. Carter has consulted extensively for IVHETA, Illinois Department of Vocational Education and AMIDS, regarding educating disadvantaged students in Home Economics.

JOHN HENDRICKS, Research Assistant, received his B.A. in Economics in 1970 from Marian College and is now as M.S. candidate at Southern Illinois University, majoring in Economics and specializing in labor economics. He has taught in the Indianapolis public school system at the junior and senior high school levels. He was also an accountant (part time) for Borden, Inc., in Columbus, Indiana and assistant freshman basketball coach at Marian College.

LOUIS HOLTZ, Research Assistant, holds a B.S. degree in Occupational Education from Southern Illinois University and is presently pursuing an M.S. degree in the same field. His past work experience has included eight years in the aviation industry, during which time he served as an air-taxi pilot and the chief instructor of an F.A.A. Approval School. He has had three years of experience as a Legal Clerk in the U.S. Army and has worked for three summers in the hospitality industry.

RICHARD H. P. KRAFT, consultant to this study, is Associate Professor in the Department of Educational Administration, The Florida State University. He received his undergraduate education at the University of Munich, Germany, and his Master and Doctoral degrees in the Economics of Education from the University of California, Berkeley. He has been actively engaged in research on manpower planning in the United States and in developing countries. His writings during the past ten years have dealt particularly with questions of resource allocations, costs and benefits, and methods of manpower planning.



ANNE NEWCOMBE, project secretary, holds a B.A. in English Literature from the Pennsylvania State University. Before coming to S.I.U., Ms. Newcombe worked at the University of Pittsburgh in various capacities, including news and publications writing, for six years.

JOHN R. WEDDLE, JR., Research Assistant, received his B.A. in Economics from Carleton College in 1970. He has had market research experience with International Multifoods Corporation and is currently studying for his M.S. degree in Higher Education at Southern Illinois University, Carbondale, majoring in student personnel work. Mr. Weddle was a psychiatric assistant at Abbott Hospital in Minneapolis from 1970 through 1971, counseling adolescents and young adult patients and conducting recreational/therapeutic activities for them. He has also had teaching experience at a children's summer cam and in a city-wide recreation program.

LAWRENCE WEISMAN, Project Director, is an instructor in the Department of Occupational Education at Southern Illinois University, Carbondale. He holds a B.S. in Accounting and an M.Ed. in Secondary Education from Temple University and is completing his Ph.D. in Higher Education at the Florida State University with a dissertation on programs for disadvantaged students in Florida's community colleges. In 1970 Mr. Weisman was associate project director for Florida's Study Group for Statewide Evaluation of Vocational and Technical education and has consulted for that group subsequently on research pertaining to the disadvantaged. In 1971, he was a project associate with Florida's Division of Community Colleges in developing Florida's plan for expanding opportunities for the disadvantaged at the community college level.